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ABSTRACT

A survey of grade 12 students in Ontario, conducted in spring 1973, sought to identify what factors influence an adolescent's future educational and vocational plans. A followup telephone survey of the same grade 12 students was conducted in November 1973 to evaluate the predictive utility of an "intentions" survey. The objectives of this survey were to ascertain: (1) the present activities of these adolescents; (2) the extent to which these adolescents were acting in accordance with their intentions as stated in spring 1973; (3) what factors distinguish adolescents who act in accord with their intentions or act contrary to their intentions; (4) to what extent adolescents in November 1973 duplicated their response to the question, "Which one statement best describes what you plan to do in the fall of 74?" and, (5) what factors distinguished "consistents" and "inconsistents" relative to question 4. Results indicated that an "intentions" survey is a poor means of predicting individual behaviors but a good device for forecasting aggregate behaviors. A profile of "consistents" and "inconsistents" is included. (Author/HMV)

NOTE

The Critical Juncture (Educational and Vocational Intentions of Grade 12 students in Ontario) is being published in three volumes of which this is the second.

The preliminary study and, this, the follow-up study, unabridged, are being distributed to college and university libraries throughout Ontario. A few copies are available from:

Information Branch
Ministry of Colleges and Universities
6th Floor, Mowat Block
Queen's Park
Toronto, Ontario, M7A 1B8.

Copies of the summary of the preliminary study and the summary of the follow-up study are available on request. Another study, a second follow-up, is being compiled.

After both unabridged and summary versions of Dr. Anisef's follow-up studies have been distributed, the Ministry of Colleges and Universities will publish its interpretation of the one preliminary and two follow-up studies.

December, 1974

PREFACE

The initial survey in Spring 1973 and the follow-up survey in November 1973 were carried forward under the auspices of the Ministry of Colleges and Universities in Ontario. The Survey Research Center of York University deserves a special note of gratitude for its able implementation of both projects. Mr. Oleh Iwanyshyn wrote the methodological appendices for both reports and should be congratulated for his diligence and competence.

Mr. John Goldlust was my research assistant and aided me in analyzing the follow-up data. I would like to thank John for his efficient assistance and the many conversations we had concerning the data; these discussions often helped clarify complex relationships and also sustained my motivation.

Ms. Miriam Baichman and my wife Etta provided both editorial assistance and emotional support throughout the duration of the project. Mrs. Audrey Robinson patiently coped with my handwriting in typing the final manuscript and deserves a special note of gratitude.

The primary credit for such helpful information that may be contained in this study is directly attributed to the enthusiasm and co-operation of the high school staff - and students, who generously

volunteered their time and thought in providing research data. We hope that the results reported will prove interesting and profitable to them.

Although this study is being published under the auspices of the Ministry of Colleges and Universities, the views expressed are solely those of the author.

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June, 1974

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INTRODUCTION

The Problem:

A survey of Grade 12 students in Ontario was conducted in Spring 1973; this survey sought to identify what factors influence an adolescent's future educational and vocational plans and to develop profiles of adolescents who possess different types of plans.[1] The profiles developed in the first phase of the survey indicate that students who plan on enrolling in universities differ markedly from all other groups of students. They tend to be male, rank high on social class background, come from urban areas in Ontario, believe they have the ability to graduate from university (and have the grades to back up this claim); and possess higher occupational aspirations than students with other types of intentions. Thus students who plan on entering a C.A.A.T. contrast sharply on all the aforementioned characteristics. Proportionately more tend to be female; they come from less prestigious backgrounds and possess fewer illusions concerning their ability to graduate from university or obtain very prestigious jobs. Their grade point averages also tend to be lower than that of university bound students.

Our [redacted]ngs in the first phase of the survey led, to the general conclusion that adolescents' educational and vocational plans are based

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[1] Paul Anisef, The Critical Juncture/Educational and Vocational Intentions of Grade 12 students in Ontario (preliminary study), Ministry of Colleges and Universities, 1973.

not on arbitrary decisions but depend, to a large extent, on social origin, place of residence, experiences and performance in high school.

Objectives of this Report:

Although an "intentions" survey provides us with an opportunity for identifying patterned differences for a specific population there exists no mechanism for evaluating the reliability of stated intentions. Any number of factors may lead to discrepancies between stated intentions and actual behaviour in that: (a) People vary in their commitment when they state an intention. This commitment is associated with varying states of knowledge, perceptions of alternative rewards and different sorts of contingencies. (b) The length of time between a stated intention and fulfilling this intention introduces the possibility that situational influences will play an influential role in altering decisions. A Grade 12 student may fully intend on entering university but a death in his family, for example, may necessitate a change in his plans. (c) The measures used to establish intentions may not be adequate.

A follow-up telephone survey of the same Grade 12 students who responded to our questionnaire in Spring 1973 was conducted in November 1973 to evaluate the predictive utility of an intentions

survey. The objectives in the follow-up survey can be stated more specifically: (1) What are the present activities of these adolescents? (2) To what extent are these adolescents acting in accord with their intentions as stated in Spring 1973? (3) What factors distinguish adolescents that act in accord with their intentions or act contrary to their intentions? (4) To what extent do adolescents in November 1973 duplicate their responses to the question that asks: "Which one statement best describes what you plan to do in the Fall of 1974?"[2] (5) What factors distinguish those adolescents who are consistent in their intentions from those who are inconsistent in their intentions?

Source of the Data:

Trained interviewers of the Survey Research Centre at York University placed telephone calls to all respondents in the Spring survey in November 1973. Sixteen interviewers were trained to ask a total of five questions that pertained to present activities and

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[2] We assume that situational influences and inadequacies in questionnaire design are factors that are relatively unimportant in explaining or understanding "consistency" in intentions. Our premise is that variations in demographic and social background, experiences and performance in high school, etc. will provide a more concise and effective explanation for consistency between intentions and activities or intentions.

future educational and vocational intentions. This process was co-ordinated by a field supervisor employed by the Survey Research Centre. Of the 2555 previous Grade 12 students, interviewers were able to reach and obtain responses from 2156 or 84.0% of the original sample.

Analysis of the Data:

The analysis is based solely on the information gathered from 2156 respondents in November 1973. In Chapter One we shall document that the 399 non-respondents are essentially similar to those that responded on criteria salient to the report. This documentation is essential for generalizing findings to the larger population, that is, Grade 12 students in Ontario.

Cross-tabulations are based on a weighted sample of 93,192. This weighted sample approximates the target population in Fall 1973 and permits the analyst to adjust for errors or deviations from the sample to the population (see Appendix I for a fuller and more detailed explanation of this procedure).

Unless otherwise specified, most tables that appear at the end of each chapter contain the following information: (1) The cells in each table contain row percentages and each row percentage will equal 100%. (2) For each row of a table we provide the number of respondents (weighted) located in that row and its proportion of the total

number of respondents (weighted) to which the table applies. This information appears in the last column of each table. (3) For each column of a table we provide the number of respondents (weighted) located in that column and its proportion of the total number or respondents (weighted) to which the table applies. This information appears in the last row of each table.

Organization of the Report:

The first chapter documents the representivity of the follow-up or phase two sample and examines the extent of change between Spring 1973 and November 1973 with respect to present activities and intentions for the Fall of 1974. Also included is an analysis of changes in financial support for the first year as perceived by adolescents in or planning on enrolling in a C.A.A.T. or university.

The second chapter consists of an analysis of the major differences (e.g., social origin, high school experiences) between "consistents" and "inconsistents." Consistency is defined in two ways: (1) Consistency with reference to intentions (Spring 1973) for Fall 1973 and present activities (November 1973). (2) Consistency between intentions (Spring 1973) for Fall 1974 and intentions (November 1973) for Fall 1974.

The third chapter examines the relationship between the present activities (e.g., Grade 13, C.A.A.T., work) of previous Grade 12 students and various aspects of the respondents' social origin, high school experiences and performance, influence of significant others, etc.

A final chapter summarizes the highlights of the preceding chapters and outlines other research projects that are suggested by the results of this survey.

Two appendices are attached to the report, Appendix I consists of a detailed discussion of the methodology employed in the follow-up report. It is written by Mr. Oleh Iwanyshyn of the Survey Research Centre, York University. Appendix II contains the questions asked in the telephone survey of November.

CHAPTER ONE

Changes in Educational and Vocational Plans

The major objective of this initial chapter is to report and analyze the extent and nature of changes that occurred in the educational and vocational plans of Grade 12 students since the Spring of 1973. Grade 12 students furnished information, in the Spring of 1973, concerning their educational plans and intentions for the Fall of 1973 and 1974. In November 1973 we identified the present activities for 84.0% of the respondents in the original survey. We also asked these respondents what they intended doing in the Fall of 1974. Our data therefore provides us with an opportunity to analyze shifts at the individual and aggregate level and compare intentions with both present behaviour and future plans.

Adolescents in the phase-two survey gave reasons for their changes. These reasons may provide motivational clues as to why shifts do occur. Our second objective is an exploration of the utility of these reasons for understanding a change in decisions.

Grade 12 students were asked, in the phase-one survey, what educational plans they had for the Fall of 1973 and 1974. Those who indicated an interest in attending either a C.A.A.T. or university were also asked what would be the most important source of financial support for their continued studies. In the phase-two survey adolescents presently enrolled in C.A.A.T.s were asked to identify the most

important source of financial support for their current studies. Adolescents claiming that they intended enrolling in a university or C.A.A.T. (in the Fall of 1974) were also requested to indicate their most important source of support. A third objective, in this chapter involves a comparison of the sources of financial support for higher studies as expressed by adolescents in Spring 1973 and November 1973.

A majority or 84.0% of those Grade 12 students that completed a self-administered questionnaire in the phase-one survey also responded to questions in November, 1973. An important question that arises is: How representative is the follow-up sample of the original target population? If non-respondents in our phase-two sample are markedly different than respondents, our freedom in generalizing to the target population, in this case, the 1972-1973 Grade 12 students in Ontario, becomes limited. If the phase-two sample is, in fact, representative of the original target population, our confidence in generalizing our findings with respect to the target population is increased.

Representivity of the Phase-Two Sample:

Four variables are employed in testing the representivity of of the phase-two sample; they are plans for Fall 1973, sex of respondent, family income, and occupational prestige of father.[1] These

1 These responses were supplied in the Spring 1973 survey.

four variables are employed in testing representivity because they appear salient to the general objectives stated in this survey. Certainly the necessity for testing representivity on the basis of adolescents' educational and vocational intentions requires no additional defense. The need to identify and explore these plans was a primary factor in conducting the initial survey. The strong association between sex and various aspects of socio-economic origin and the educational intentions of Grade 12 students justify the incorporation of these variables in testing representivity.

An examination of the confidence limits for phase-one and phase-two comparisons (employing plans for Fall 1973, sex, family income and father's occupational prestige) reveals that the value ranges overlap in each instance (Tables I.1 - I.4). For example, the confidence range of phase-one respondents that replied "go to Grade 13" is 45.1% - 54.1% while the range for phase-two respondents is 49.9% - 58.5% (Table I.1). This overlap in confidence limits, between the two samples, indicates that both samples are drawn from the identical target population because they closely resemble each other on variables employed to test representivity.

Adolescents who did not respond to the phase-two survey are essentially similar to respondents on a number of relevant criteria in that the confidence limits do overlap. Therefore we may generalize our findings (based on the phase-two sample) to the target population.

Present Activities and Future Intentions of Adolescents in Phase-Two Survey:

As of November, 1973, 53.2% of phase-two respondents were enrolled in Grade 13; 24.5% had obtained full-time jobs; 10.0% had entered C.A.A.T.s (this includes adolescents that decided on nursing as a vocation); and 12.2% told us that they were engaged in other types (e.g., trade schools, apprenticeship programs) of activities. (Table I.5).

When phase-two adolescents were asked, "What do you plan to do in the Fall of 1974?" we discovered that 23.5% intended to obtain a full-time job; 34.3% planned on enrolling in university, while a further 22.4% claimed they would enter a C.A.A.T. (including nursing); 11.4% stated that they had other plans for the Fall of 1974 and 8.3% had not yet chosen an educational or vocational objective (Table I.6).

By looking at the confidence limits in Table 1.5 and Table 1.6 we may achieve some notion concerning the range of values within which the population mean is likely to fall: Assuming that one wishes to learn what proportion of adolescents in Ontario, in 1973, are presently in Grade 13;[2] we may then state that there is a 95% probability that the population mean (with relation to Grade 13) falls within the range of sample mean, 53.2% plus or minus 4.21; the range therefore is 49.0% - 57.4%. Similarly we have 95% confidence that between 7.0% - 13.0% of the population will be enrolled in C.A.A.T.s.

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[2] This does not refer to all adolescents in Ontario; only those adolescents that were previously in Grade 12.

It should be noted that the range in confidence limits varies with the nature of the category. Consider phase-two respondents' intentions for the Fall 1974. There is a 95% probability that between 29.4% and 39.1% of the population will share the same intention (enrolling in university); this is virtually a ten percent range in values. On the other hand, there is a 95% probability that between 20.5% and 24.3% of the adolescent population will desire enrolling in C.A.A.T.s ; this variation in values is less than four percent. Quite clearly the precision with which population means can be estimated is dependent on the nature of the plan or intention.

Changes in Educational and Vocational Intentions:

Comparison of intentions (Spring 1973) and present activities (November 1973)

A number of interesting facts emerge when individual and aggregate changes are analyzed. These changes refer to our comparison of phase-two respondents' intentions (Spring 1973) with their activities in November 1973.[3] Within six months, 22.3% of all

[3] Table I.7A offers the cross-tabulation of intentions with present activities. All ten unrecoded categories for plans and activities are available in this table. However, we sought to simplify the analysis by collapsing these categories into four. They are grade 13, job, C.A.A.T. (including nursing) and all other intentions or activities (Table I.7B). Note that the "don't know" category is eliminated; this means that the marginal percentages in Table I.7A differ from those in Table I.7B.

adolescents in the phase-two survey participate in activities that are different than the plans they voiced in the Spring survey; this percentage is based on grouped data in Table A.7B in which the "don't know category is eliminated."

Adolescents who originally expressed an intention to enter Grade 13 are the most consistent subgroup, in that, 91.3% actually entered Grade 13. It is also true that 95.1% of adolescents now in Grade 13 originally expressed a desire to enter Grade 13. Adolescents who claimed, in the Spring survey, that they would obtain a full-time job next Fall proved less consistent in that only 77.5% actually entered the labour market. Moreover, only 52.0% of adolescents presently employed at full-time jobs originally stated that they would work in the Fall; 31.5% originally planned on becoming involved in alternative activities. An analysis of adolescents who originally told us they would enter C.A.A.T.s in the Fall reveals comparable inconsistency; only 70.8% enrolled in C.A.A.T.s. But it is also true that 86.4% of adolescents now enrolled in C.A.A.T.s originally claimed that this was their intention.

One may hypothesize that variations in consistency, as it relates to educational and vocational choices, are either associated

with the "choices" or the characteristics of the "decision-makers." In Chapter Two we present data that supports the argument that consistency or inconsistency between plans and behaviours derive from the characteristics of the decision-makers. This argument is unacceptable unless we indicate that variations in consistency, among the subgroups (e.g., Grade 13, job, C.A.A.T.), are substantially different.

The hypothesis that variations in consistency differ substantially among the subgroups of the phase-two survey is partially supported by the results presented in Table I.8. The range in values for inconsistency among adolescents who originally expressed the desire to enter Grade 13 and among adolescents who originally planned on enrolling in C.A.A.T.s is 5.2% - 12.2% and 18.1% - 40.3% respectively. There is a 95% probability that these value ranges will be approximated in the target population. The range in values for these two subgroups do not overlap; thus the differences in inconsistency between these subgroups are substantial. However, the variations in consistency between those adolescents who originally said "get a job" and "go to a C.A.A.T." are not significantly different in that the confidence limits do overlap. If these subgroups are ranked in terms of consistency, adolescents who originally claimed they intended on entering Grade 13 are <u>most</u> consistent.

Adolescents who originally stated other intentions are least consistent, while adolescents who expressed a desire to obtain a job or enrol in C.A.A.T.s share an intermediate rank.

Nearly a quarter of respondents in the phase-two survey changed their minds regarding their educational and vocational objectives. This raises serious questions concerning the utility of an intentions survey for predicting the behaviour of individuals. If an intentions survey is used to forecast aggregate changes, the situation alters. While 54.2% of adolescents in the phase-two survey indicated that they planned on entering Grade 13, we find that 53.2% actually did enter in the Fall of 1973 (Table 1.7A). A further 11.8% stated (Spring 1973) that they were planning on enrolling in C.A.A.T.s (including nursing schools) and 10.0% actually did enrol. The percentage differences are minimal and indicate that the aggregate percentages are good indicators for predicting the proportion that enter Grade 13 and C.A.A.T.s. If, however, the focus were on forecasting labour market involvement aggregate percentages would be misleading in that 15.6% planned on obtaining jobs but 24.6% actually entered the labour market.[4]

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[4] This 9.0% difference probably reflects the inconsistency of adolescents who originally expressed the desire to take time off, enter trade schools or do part-time studies.

Reasons for Change:

Adolescents in the follow-up survey were asked this question: "Several months ago you told us what you would be doing this Fall. If you are doing something different than what you had planned, please explain the reason for a change in plans." Although 22.3% did change their plans only 11.2% explained the reason for the change. Of those who did offer reasons for change approximately 3% had not modified their plans. This suggests that a certain proportion of adolescents waver in their decisions and did not recall their stated intentions in Spring 1973. The same logic suggests that a large proportion of adolescents incorrectly believe their present activities coincide with their originally stated intentions.

The reasons offered by adolescents fall into three groups; reasons that relate to situational factors (e.g., marriage, failure in a course, etc.); reasons that are personal-generalized (e.g., don't know, boredom, changed my mind, etc.); and reasons that are personal but particularized (e.g., developed a new interest, information concerning original goal found to be inaccurate, discovery that original intention was no good in realizing potential rewards, etc.). We found that 37.4% of reasons offered were situational in nature and 'performance failure' was verbalized most frequently. Approximately 43% of reasons offered were personal - generalized

and 'changed mind' and 'boredom' were most frequently expressed. While 19.7% of reasons offered were personal - particularized and 'new interest' and 'discovered that intention was no good' were most frequently given.

Comparison of Intentions (Spring 1973) and Intentions (November 1973)

A number of interesting facts emerge when individual and aggregate changes are analyzed; these changes refer to our comparison of phase-two respondents' intentions (Spring 1973) for the Fall of 1974 and their intentions for the Fall of 1974 as expressed in November 1973.[5] Within six months 44.7% of all adolescents in the phase-two survey had altered their original intentions for the Fall of 1974.

Adolescents who originally stated an intention to enrol in university comprise the most consistent subgroup in that 79.0% expressed the identical plan in November 1973 (Table I.9B). Furthermore, 74.8% of adolescents who claimed in November, that they would enter universities next Fall had made the same claim in our Spring survey. Adolescents who originally stated they would either obtain a job or enter a C.A.A.T. in Fall 1974 prove to be less consistent in that

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5 Table I.9A offers the cross-tabulation of intentions expressed both in Spring 1973 and November 1973. These intentions are defined in nine unrecorded categories. We sought to simplify the analysis by collapsing these categories into five. They are - get a job, go to university, go to a C.A.A.T. (including nursing schools), other intentions, and don't know (Table I.9B).

68.8% of the former and 64.7% of the latter subgroups reaffirmed this plan in November 1973. Adolescents with other types of intentions are least consistent in that 75.8% changed their decisions between Spring and November 1973.

The confidence limits presented in Table 1.10 permits us to rank order the subgroups in terms of consistency in intentions.[6] Adolescents who originally stated a preference for entering university are the most consistent in their intentions. Next in line are adolescents who originally claimed that they planned on entering the labour force or enrolling in C.A.A.T.s. Adolescents who originally stated other kinds of plans prove to be the most inconsistent subgroup.

Well over forty percent of respondents in the phase-two survey changed their original educational and vocational intentions for Fall 1974 when questioned again in November 1973. This rather large shift in individual decisions again raises serious questions regarding the utility of an intentions survey for estimating future intentions. If the intentions survey is employed in forecasting aggregate changes, the situation alters. While 32.3% of phase-two respondents originally stated a preference for enrolling in university, 34.3% stated an

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[6] We applied the logic discussed in the previous section to rank order the subgroups. Those who originally stated they planned on obtaining a job or entering C.A.A.T.s. in the Fall of 1973 can not be differentiated in terms of consistency in that their confidence limits overlap.

identical preference in November 1973. A further 20.8% claimed, in the Spring survey, that they planned on enrolling in a C.A.A.T. (including nursing schools); when telephoned in November 1973, 22.5% also stated that they intended to enrol in C.A.A.T.s in the Fall of 1974. An intentions survey would appear to be less accurate in forecasting labour market intentions in that 18.6% in Spring 1973 and 23.4% in November 1973 claimed that they planned on obtaining jobs in Fall 1974.[7]

Reasons for Change

Adolescents in the follow-up survey were asked: "Several months ago you told us what you were planning on doing in the Fall of 1974. If these plans have now changed, please tell us the reason for the change." Although 44.7% did change their plans, only 12.5% actually offered reasons for a change. Of the adolescents who presented reasons approximately five percent had not actually changed their plans.[8] The explanations offered only reflect a small sub-section of those who did alter their decisions.

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[7] This 4.8% difference probably reflects the inconsistency among adolescents who originally stated that they planned to take time off or enter a C.A.A.T., etc.

[8] Their responses in Spring 1973 and November 1973 were cross-checked.

We found that 26.5% of the reasons presented were situational in nature with 'performance failure' the predominant factor for a change; 42.6% of the reasons were personal- generalized in nature with 'changed mind' and 'boredom' the most frequently given explanation and 30.9% of the reasons were personal- particularized with 'new interest' and 'discovery that former intention was no good' the predominant factors.

Changes in Financial Support

Adolescents who informed us in November 1973 that they were enrolled in a post-secondary institution were asked: "From the following list of potential-sources, please tell us through what source you are financing the total cost (i.e., tuition, living costs and other expenses) of your first year of post-secondary education?" Grade 12 students who indicated, in the Spring of 1973, a preference for enrolling in post-secondary institutions in the Fall of 1973 were asked the identical question. This allows us to compare "intended financing" with "actual financing" of first year education (Table I.11). We find that the distributions are quite similar but with some variation. A larger proportion of adolescents depend on parents for financial support (48.4%) than intended (44.7%). Fewer (19.6%) actually sought government loans and grants than had intended to do so in the Spring

of 1973 (22.2%). It is also true that fewer have to dip into personal savings (3.6%) to finance their first year than expected last Spring (8.8%).

Adolescents who claimed they would either enrol in university or C.A.A.T. in the Fall of 1974 when telephoned in November 1973 were also asked: "Through what source will you finance the total cost (i.e., tuition, living costs and other expenses) of your post-secondary education in 1974?" This provided us with an opportunity for contrasting these responses with those offered by phase-two respondents in Spring 1973 to an identical question. We again discover that the frequency distributions are quite similar with minor variations; 44.8% of respondents in Spring 1973 and 42.3% of respondents in November 1973 indicate they will rely on parents to finance their first year of education in Fall of 1974. Slightly more adolescents intend relying on government grants and loans (17.3%) than intended in Spring 1973, (5.5%) while a greater proportion plan on using personal savings (12.5%) than in Spring 1973 (9.0%).

Table I.1: Percentages, Confidence Intervals, and Confidence Limits for Educational/Vocational Plans of Adolescents in Fall 1973 - Phase One and Phase Two Comparison

Educational/Vocational Plans: 1973	Phase One[1] Percentages and Confidence Intervals	Phase One[1] Confidence Limits[2]	Phase Two Percentages and Confidence Intervals	Phase Two Confidence Limits[2]
Go to grade 13	49.6 ± 4.46	(45.1 - 54.1)	54.2 ± 4.32	(49.9 - 58.5)
Get a full-time job	17.8 ± 2.82	(14.9 - 20.6)	15.6 ± 2.21	(13.4 - 17.8)
Take a year off	6.7 ± 1.33	(5.4 - 8.0)	6.1 ± 1.31	(4.8 - 7.4)
Go to a CAAT	11.1 ± 3.28	(7.7 - 14.4)	10.6 ± 3.40	(7.2 - 14.0)
Go to nursing school	1.2 ± 0.98	(0.2 - 2.2)	1.2 ± 0.80	(0.4 - 2.0)
Study part-time at CAAT	1.4 ± 0.82	(0.6 - 2.2)	1.3 ± 1.04	(0.3 - 2.3)
Go to trade school, etc.	3.8 ± 1.62	(2.2 - 5.4)	3.3 ± 1.11	(2.2 - 4.4)
Go to university	1.2 ± 0.61	(0.6 - 1.8)	1.1 ± 0.68	(0.4 - 1.8)
Other	3.2 ± 0.64	(2.6 - 3.8)	3.0 ± 0.79	(2.2 - 3.8)
Don't know	3.7 ± 1.17	(2.5 - 4.9)	3.5 ± 1.33	(2.2 - 4.8)
	N = 2555		N = 2155	

[1] The confidence intervals reported in The Critical Juncture, p. 125 were found to be inaccurate after they were recalculated.

[2] A 95% confidence limit was employed; this means that there is a probability of 0.95 that the population mean lies within the range of sample mean ± 1.96 standard errors. Conversely, there is a 0.05 probability that it does not, a 0.05 probability that the population mean lies outside (below or above) these limits of value.

Table I.2: Percentages, Confidence Intervals and Confidence Limits for Sex of Adolescents - Phase One and Phase Two Comparison

	Phase One		Phase Two	
Sex	Percentages and Confidence Intervals	Confidence Limits[1]	Percentages and Confidence Intervals	Confidence Limits[1]
Male	49.2 ± 1.07	(48.1 - 50.3)	49.3 ± 1.38	(47.9 - 50.7)
Female	50.8 ± 1.04	(49.8 - 51.8)	40.7 ± 1.37	(49.3 - 52.0).
	N = 2555		N = 2155	

[1] A 95% confidence limit was employed; this means that there is a probability of 0.95 that the population mean lies within the range of sample mean ± 1.96 standard errors. Conversely, there is a 0.05 probability that it does not, a 0.05 probability that the population mean lies outside (below or above) these limits of value.

Table I.3: Percentages, Confidence Intervals and Confidence Limits for Family Income - Phase One and Phase Two Comparison of Adolescents

Family Income	Phase One: Percentages and Confidence Intervals	Phase One: Confidence Limits[1]	Phase Two: Percentages and Confidence Intervals	Phase Two: Confidence Limits[1]
Below $4,000	2.2 ± 0.55	(1.6 - 2.7)	2.3 ± 0.74	(1.6 - 3.0)
$4,000 - 7,000	7.3 ± 3.05	(4.2 - 10.3)	6.8 ± 3.50	(3.3 - 10.3)
$7,000 - 10,000	16.9 ± 1.03	(15.9 - 18.9)	16.8 ± 0.95	(15.8 - 17.8)
$10,000 - 13,000	13.1 ± 2.32	(10.8 - 15.4)	13.4 ± 1.82	(11.6 - 15.2)
$13,000 - 16,000	12.2 ± 1.68	(10.5 - 13.9)	11.9 ± 2.17	(9.7 - 14.1)
$16,000 - 19,000	7.7 ± 2.02	(5.7 - 9.7)	7.8 ± 1.80	(6.0 - 9.6)
Above $19,000	11.2 ± 2.46	(8.7 - 13.7)	11.7 ± 2.53	(9.2 - 14.2)
Don't know	29.3 ± 3.28	(26.0 - 32.6)	29.1 ± 2.46	(26.6 - 31.6)
	N = 2555		N = 2155	

[1] A 95% confidence limit was employed; this means that there is a probability of 0.95 that the population mean lies within the range of sample mean ± 1.96 standard errors. Conversely, there is a 0.05 probability that it does not, a 0.05 probability that the population mean lies outside (below or above) these limits of value.

Table I.4:- Percentages, Confidence Intervals and Confidence Limits for Father's Occupational Prestige - Phase One and Phase Two Comparison of Adolescents

Father's Occupational Prestige	Phase One: Percentages and Confidence Intervals	Phase One: Confidence Limits[1]	Phase Two: Percentage and Confidence Intervals	Phase Two: Confidence Limits[1]
Blishen one	7.9 ± 1.66	(6.2 -- 9.6)	8.3 ± 1.71	(6.6 - 10.0)
Blishen two	11.9 ± 3.17	(8.7 --15.1)	12.1 ± 3.05	(9.0 - 15.1)
Blishen three	10.2 ± 2.85	(7.3 --13.0)	9.8 ± 2.58	(7.2 - 12.4)
Blishen four	15.8 ± 1.46	(14.3 - 17.3)	16.1 ± 1.88	(14.2 - 18.0)
Blishen five	35.9 ± 3.57	(32.3 - 39.5)	35.6 ± 3.04	(32.6 - 38.6)
Blishen six	18.4 ± 4.67	(13.7 - 23.0)	17.9 ± 5.04	(12.9 - 22.9)
	N = 2555		N = 2155	

[1] A 95% confidence limit was employed; this means that there is a probability of 0.95 that the population mean lies within the range of sample mean ± 1.96 standard errors. Conversely, there is a 0.05 probability that it does not, a 0.05 probability that the population mean lies outside (below or above) these limits of value.

Table I.5: -Percentages, Confidence Intervals and Confidence Limits for Present Educational/Vocational Activities of Adolescents in November 1973 (Phase Two Survey).

Phase Two Survey

Educational/Vocational Activities - November, 1973	Percentages and Confidence Intervals	Confidence Limits[1]
Grade 13	53.2 ± 4.21	(49.0 - 57.4)
Full-time job	24.5 ± 3.06	(21.5 - 27.6)
C.A.A.T. (including nursing)	10.0 ± 2.95	(7.0 - 13.0)
Other activities	12.2 ± 1.75	(10.4 - 14.0)
	N = 2155	

[1] A 95% confidence limit was employed; this means that there is a probability of 0.95 that the population mean lies within the range of sample mean ± 1.96 standard errors. Conversely, there is a 0.05 probability that it does not, a 0.05 probability that the population mean lies outside (below or above) these limits of value.

Table I.6: Percentages, Confidence Intervals and Confidence Limits for Educational/Vocational Intentions of Adolescents for Fall 1974 as stated in November 1973 (Phase Two Survey)

Educational/Vocational Intentions for Fall 1974	Percentages and Confidence Intervals	Confidence Limits[1]
Get a full-time job	23.5 ± 2.74	(20.7 - 26.2)
Go to University	34.3 ± 4.89	(29.4 - 39.1)
Go to C.A.A.T. (including nursing)	22.4 ± 1.90	(20.5 - 24.3)
Other intentions	11.4 ± 2.28	(9.1 - 13.7)
Don't know	8.3 ± 1.77	(6.5 - 10.1)
	N = 2155	

[1] A 95% confidence limit was employed; this means that there is a probability of 0.95 that the population mean lies within the range of sample mean ± 1.96 standard errors. Conversely, there is a 0.05 probability that it does not, a 0.05 probability that the population mean lies outside (below or above) these limits of value.

Table I.7A: Relationship Between Present Activities of Phase Two Adolescents and their Plans as Stated in Spring 1973 (ungrouped data)

	Present Activities										
	Grade 13	Job	Time off	C.A.A.T.	Nursing school	Part-time studies	Trade school	University	Other	Don't know	
Grade 13	88.8 93.3	4.5 10.2	0.9 32.8	0.9 3.9	0.0 0.0	0.0 0.0	0.2 7.6	0.3 11.9	4.7 35.9	0.1 100.0	50336.4 54.2
Job	3.4 3.0	77.5 49.2	1.6 16.3	1.5 2.5	0.0 0.0	1.2 21.2	1.2 15.7	0.0 0.0	13.7 29.5	0.0 0.0	14483.8 15.6
Time off	10.6 1.2	56.4 14.1	7.9 31.5	6.2 4.2	0.0 0.0	0.6 4.6	0.6 2.9	1.1 5.1	16.7 14.2	0.0 0.0	5710.8 6.1
C.A.A.T.	2.1 0.4	12.9 5.6	1.2 8.2	69.1 80.3	2.7 30.4	5.0 61.0	0.3 2.9	3.7 29.3	3.0 4.3	0.0 0.0	9821.8 10.6
Nursing school	5.7 0.1	15.9 0.8	0.0 0.0	13.1 1.8	49.1 64.5	0.0 0.0	0.0 0.0	0.0 0.0	16.2 2.8	0.0 0.0	1153.7 1.2
Part-time studies	14.6 0.4	58.7 3.1	0.0 0.0	16.3 2.3	0.0 0.0	3.5 5.3	7.0 7.6	0.0 0.0	0.0 0.0	0.0 0.0	1214.3 1.3
Trade school	4.0 0.2	67.1 9.0	2.1 4.5	1.3 0.5	0.0 0.0	0.0 0.0	18.6 50.5	0.0 0.0	7.0 3.1	0.0 0.0	3046.9 3.3
University	26.4 0.5	8.8 0.4	0.0 0.0	4.0 0.5	0.0 0.0	0.0 0.0	0.0 0.0	60.9 50.8	0.0 0.0	0.0 0.0	1022.3 1.1
Other	28.0 0.7	39.8 2.2	3.0 2.6	3.6 0.5	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	25.6 4.8	0.0 0.0	2786.1 3.0
Don't know	31.6 2.1	38.1 5.5	1.8 4.1	8.9 3.5	1.3 5.0	1.9 7.9	4.4 12.8	1.1 2.9	10.9 5.3	0.0 0.0	3281.9 3.5
	49390.3 53.2	22817.7 24.6	1428.1 1.5	8449.4 9.1	876.8 0.9	799.0 0.9	1120.4 1.2	1224.0 1.3	6732.1 7.2	33.9 0.0	92871.7 100.0

N.B. Each cell in the table contains two pieces of information; from top to bottom of the cell they are the row percentage (for intentions stated in Spring 1973) and the column percentage (for present activities of adolescents in November 1973). These percentages are based on the weighted sample as indicated by the row and column numbers.

Table L.7B: Relationship Between Present Activities of Phase Two Adolescents and their Plans as Stated in Spring 1973 (grouped data).

	Present Activities				
	Grade 13	Job	C.A.A.T. (including nursing)	Other	
Go to Grade 13	91.3 95.1	4.2 9.8	0.7 3.7	3.9 18.4	50361.6 56.2
Get a job	3.4 1.0	77.5 52.0	1.5 2.4	17.7 24.1	14483.8 16.2
Go to a C.A.A.T (including nursing)	2.5 0.6	13.2 6.7	70.8 86.4	13.5 13.9	10966.5 12.2
Other	11.9 3.4	49.4 31.5	4.9 7.5	33.8 43.6	13744.0 15.3
	48354.1 54.0	21566.1 24.1	8989.2 10.0	10646.5 11.9	89555.9 100.0

N.B. Each cell in the table contains two pieces of information; from top to bottom of the cell they are the row percentage (for intentions stated in Spring 1973) and the column percentage (for present activities of adolescents as of November 1973). These percentages are based on the weighted sample as indicated by the row and column numbers.

Table I.8: Percentages, Confidence Intervals, and Confidence Limits for Inconsistency between Intentions (Spring 1973) and Present Activities of Phase Two Respondents by Originally Stated Intentions

Phase Two Respondents

Inconsistency by originally stated intentions[1]	Percentages, Confidence Intervals	Confidence Limits
Go to Grade 13	8.7 ± 3.49	(5.2 - 12.2)
Get a job	22.5 ± 3.71	(18.8 - 26.2)
Go to G.A.A.T. (including nursing)	29.2 ± 11.1	(18.1 - 40.3)
Other intentions	66.2 ± 6.5	(59.7 - 72.7)

N = 2155

[1] Both originally stated intentions and present activities were grouped into these four categories to simplify analysis.

Table I.9A: Relationship of Plans for Fall 1974 (stated in November 1973) and Plans for Fall 1974 (as stated in Spring 1973) - ungrouped data.

Plans for Fall 1974 as stated in November 1973

	Job	Time off	University	C.A.A.T.	Nursing school	Part-time studies	Trade school	Grade 13	Other/ Don't Know	
Job	68.8 54.6	2.1 11.0	1.7 0.9	7.0 6.9	0.9 4.5	1.6 16.6	2.9 50.6	5.5 20.6	9.5 21.2	17212.1 18.6
Time off	17.8 6.8	16.2 40.3	29.1 7.6	10.7 5.1	1.7 4.1	2.4 11.9	0.0 0.0	8.9 15.9	13.3 14.2	8282.2 8.9
University	2.1 2.9	1.9 17.4	79.6 74.9	7.0 12.1	2.0 17.7	0.4 6.2	0.0 0.0	2.5 16.0	4.6 17.6	29923.9 32.3
C.A.A.T.	10.0 7.6	2.2 10.7	11.6 6.0	59.1 55.8	3.0 14.3	3.4 32.8	0.0 0.0	4.8 17.1	5.9 12.6	16396.1 17.7
Nursing school	8.6 1.1	0.0 0.0	6.2 0.6	12.1 2.0	67.5 56.3	0.0 0.0	0.0 0.0	4.5 2.8	1.2 0.5	2853.7 3.1
Part-time studies	24.9 4.6	0.0 0.0	21.9 2.7	27.8 6.4	0.0 0.0	7.1 16.8	4.8 16.3	3.1 2.7	11.2 5.8	3982.7 4.3
Trade school	56.0 1.8	0.0 0.0	0.0 0.0	5.2 0.2	0.0 0.0	0.0 0.0	17.2 12.2	21.5 3.3	0.0 0.0	696.2 0.8
Grade 13	38.0 6.0	6.9 7.1	7.3 0.8	14.6 2.9	1.9 1.9	0.0 0.0	3.6 12.4	14.6 10.8	13.0 5.7	3404.1 3.7
Other/Don't know	32.3 14.7	4.5 13.5	21.1 6.5	15.4 8.8	0.4 1.2	2.7 15.6	0.8 8.5	5.1 11.0	17.5 22.4	9850.2 10.6
	21697.0 23.4	3326.9 3.6	31779.4 34.3	17381.7 18.8	3416.1 3.7	1688.6 1.8	983.7 1.1	4601.1 5.0	7726.7 8.3	92601.2 100.0

N.B. Each cell in the table contains two pieces of information; from top to bottom of the cell they are the row percentage (for intentions stated in Spring 1973) and the column percentage (for intentions stated in November 1973). These percentages are based on the weighted sample as indicated by the row and column numbers.

Table I.9B: Relationship of Plans for Fall 1974 (stated in November 1973) and Plans for Fall 1974 (as stated in Spring 1973) - grouped data.

Plans for Fall 1974 as Stated in November 1973

	Get a job	Go to University	Go to C.A.A.T. (including nursing)	Other	Don't know	
Get a job	68.8 54.6	1.7 0.9	7.9 6.5	12.1 19.7	9.5 21.2	17212.1 18.6
Go to University	2.1 2.9	79.6 74.9	9.0 13.0	4.7 13.4	4.6 17.6	29923.9 32.3
Go to C.A.A.T. (including nursing)	9.8 8.7	10.8 6.5	64.7 59.9	9.5 17.2	5.2 13.1	19249.8 20.8
Other	25.4 19.1	21.6 11.1	16.7 13.1	24.2 37.4	12.2 25.8	16365.2 17.7
Don't know	32.3 14.7	21.1 6.5	15.9 7.5	13.2 12.3	17.5 22.4	9850.2 10.6
	21697.0 23.4	31779.4 34.3	20797.8 22.5	10600.3 11.4	7726.7 8.3	92601.2 100.0

N.B. Each cell in the table contains two pieces of information; from top to bottom of the cell they are the row percentage (for intentions stated in Spring 1973) and the column percentage (for intentions stated in November 1973). These percentages are based on the weighted sample as indicated by the row and column numbers.

Table I.10: Percentages, Confidence Intervals, and Confidence Limits for Inconsistency between Intentions for Fall 1974 (stated in Spring 1973) and Intentions for Fall 1974 (stated in November 1973) by Originally Stated Intentions for Phase Two Respondents

	Phase Two Respondents	
Inconsistency by originally stated intentions[1]	Percentages, Confidence Intervals	Confidence Limits
Get a job	31.2 ± 3.37	(27.8 - 34.6)
Go to university	20.4 ± 4.09	(16.3 - 24.5)
Go to C.A.A.T. (including nursing)	35.3 ± 4.56	(30.7 - 39.9)
Other intentions	75.8 ± 2.48	(73.3 - 78.3)

N = 2155

[1] Both originally stated intentions (Spring 1973) and intentions (November 1973) for Fall 1974 were grouped into four categories to simplify analysis.

Table I.11: Most Important Source of Financial Support - a Comparison of Intentions and Behaviour for Adolescents Presently in C.A.A.T.s.

Source of support	Phase Two Survey: Intentions (Spring 1973)	Phase Two Survey: Behaviour (November 1973)
Parents, inheritances	44.7	48.4
Government loans and grants	22.2	19.6
Scholarships and bursaries	1.8	1.5
Summer work savings	18.7	19.8
Part-time work while studying	0.8	4.3
Loans from relatives or friends	2.2	1.0
Personal savings	8.8	3.6
Other sources	0.9	1.8

Table I.12: Most Important Source of Financial Support - a Comparison of Intentions (Spring 1973) with Intentions (November 1973)

Phase Two Survey

Source of support	Intentions (Spring 1973)	Behaviour (November 1973)
Parents, inheritances	44.8	42.3
Government loans and grants	15.5	17.3
Scholarships and bursaries	2.9	2.9
Summer work savings	22.4	22.1
Part-time work while studying	1.3	1.0
Loans from relatives or friends	2.4	0.5
Personal savings	9.0	12.5
Other sources	1.8	1.3

CHAPTER TWO

A Profile of Consistents and Inconsistents

We have established that after a six-month period nearly a quarter of the respondents in the second-phase sample became engaged in activities that substantially differ from their originally stated intentions in Spring 1973. Well over forty percent have also modified their plans for the Fall of 1974. An analysis of these changes and the respondent's reasons for change are presented in Chapter One of this report. But this analysis offers little insight concerning the factors associated with "consistency" or "inconsistency" of intentions and activities (or further intentions) over a period of time.

Although situational factors (e.g., death in the family, illness, etc.) may explain some small proportion of inconsistency in plans we suggest that a more comprehensive understanding of inconsistency can be derived from a knowledge of an adolescent's position in society, his family position and his experiences in high school. Our objective in this chapter involves an exploration of the thesis that consistents and inconsistents vary substantially on factors associated with their demographic and social background and on factors that relate to educational and vocational choices (e.g., grades).[1]

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[1] Ordinarily one would employ a chi-square test for significance to substantiate whether observed frequencies differ significantly from expected frequencies. However the chi-square statistic is insensitive when large weighted samples are used and hence it would be misleading to present the chi-square statistic in our analysis.

Operational Definition of Consistency:

Consistency is operationally defined in two ways and applies only to those respondents in the second-phase sample. The components of this definition are: (a) Two questions in the Spring 1973 student questionnaire. They are: (1) "Which one statement best describes what you plan to do next Fall (1973)?" (2) "Which statement best describes what you plan to do in the Fall of 1974?" (b) Two questions that were asked in November 1973 by telephone interviewers are: "A few months ago, the Survey Research Centre at York University conducted a survey to study the educational plans of Ontario High School students. We are now re-interviewing these students to see if they have made changes in their plans. You were one of the students in the sample and we would like to ask you a few questions .... (1) What are you doing now, that is are you working, completing Grade 13 or what?" (2) "What do you plan to do in the Fall of 1974?"

Our objective was to obtain measures of consistency that relate to the Fall of 1973 and 1974. For example, if a respondent said he planned on going to Grade 13 (a : 1) and replied in November, that he was in Grade 13 (b : 1) we classified this respondent as "consistent." If the respondent stated he was now working at a full-time job we classified him as "inconsistent."

This classification procedure results in two measures of consistency. One measure relates a person's intentions to his actual behaviour [(a : 1) (b : 1)] and the second measure relates a person's intentions to his intentions as stated at a later date [(a ; 2) (b : 2)]. Our analysis of consistency will follow this aforementioned division in that the first section contains a discussion of factors associated with plans for Fall 1973 (that is, intentions - behaviour) and the second section contains a discussion of plans for Fall 1974 (that is, intentions - intentions).

Each of the two sections are further subdivided into five areas. These areas are: Demographic characteristics and family-structure, socio-economic origin, the role of significant others, academic performance and self-evaluation and occupational expectations and aspirations.

1. Consistents and Inconsistents: Fall of 1973

Demographic Characteristics and Family Structure:

In this area four factors are examined. They are degree of urbanization,[2] sex, number of children in the family and birth rank

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[2] Four strata were defined on the basis of size and location of the school. Crudely speaking strata 1 consists of school boards in a highly urbanized setting while strata 4 consists of boards in a rural setting.

or ordinal position in the family.

Consistency and degree of urbanization are associated in that inconsistents are less likely than consistents to live in highly urbanized areas and more likely to reside in rural areas. While 24.6% of consistents come from schools located in urban areas of Ontario only 16.6% of inconsistents live in comparable areas (Table II.1).

Consistency between intentions and activities is also related to the sex of respondent. Less than half of consistents are male while fully 53.2% of inconsistents are male. Although the percentage difference is relatively small (5.4%) with respect to sex, the old adage that changeability is more a female than male trait is not supported by the data (Table II.2).

Consistency appears to be strongly associated with components of family structure. Consistents are less likely to come from larger families than inconsistents. A quarter of inconsistents live with parents that have six or more children while only 15.9% of consistents are similarly blessed (Table II.3). It is also true that inconsistents are less likely than consistents to be the first born in the family and more likely to occupy the fourth or fifth rank in the ordinal structure of their families (Table II.4). Thus 23.9% of inconsistents and only 14.4% of consistents are fourth (or later) in birth rank among the children of their respective families.

Socio-economic Origin:

Social scientists often find that a person's position in society, defined in terms of socio-economic origin, strongly influence his attitudes and behaviours. Social position is a multi-dimensional concept and can be operationalized by employing a variety of indices. In this instance we utilize the education and occupational prestige of father to pinpoint the socio-economic origin of respondents. Bernard Blishen has developed a social class index consisting of six levels of occupational prestige, this index will be employed in our analysis of consistency.[3]

The socio-economic origin of respondents clearly relates to a continuity between their intentions and activities this Fall. When education of the father is related to consistency we find that while fully 28.5% of consistents' fathers have some university education or have completed a higher degree only 17.9% of 'inconsistents' fathers can make similar claims. The data indicates that respondents classified as inconsistent are more likely to have fathers who have generally achieved lower levels of formal education than fathers of consistent respondents (Table II.5).

A parallel pattern emerges when father's occupational prestige is related to consistency; (Table II.6) whereas fully 23.0% of fathers of inconsistent respondents occupy the lowest level of occupational

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[3] Bernard Blishen et al., Canadian Society, Macmillan of Canada, 1968, Toronto, Page 752.

prestige only 16.0% of fathers of consistent respondents are at a comparable level of prestige. The pattern that emerges is this: Inconsistents are more likely to occupy lower socio-economic positions (defined in terms of father's occupation) than consistents.

Role of Significant Others :

An adolescent's decision concerning his future career is influenced by contact with a variety of different people. The educational and vocational choices of adolescents (and the stability of choice over time) will relate to the degree of encouragement received by the adolescent from significant others in his environment (e.g., family, peers, and school agents).

We will now explore the relationship between the degree of encouragement given by parents and teachers to continue education beyond high school and consistency. Although a pattern can be identified for parents the trend for teachers is a good deal weaker.

While 45.9% of consistents' mothers strongly encourage their children to continue their education beyond high school, only 38.7% of inconsistents' mothers exert a similar influence (Table II.7). The same pattern is observed when encouragement by fathers is analyzed; 48.0% of consistents' fathers strongly encourage their children to pursue a higher education while 35.9% of inconsistents' fathers make

similar attempts.

When we turn to encouragement given by teachers the direction of the relationship, established for mothers and fathers, is the same but weaker (Table II.9). However, we may generally observe that continuity between intentions and activities relates to the degree of encouragement by significant others in that consistents are more likely to receive a greater amount of encouragement to continue their studies than inconsistents.

Academic Performance and Self-evaluation:

Grades are important to adolescents in that they provide benchmarks for self-placement and aid in clarifying or shaping educational and vocational plans. No less important is the adolescents' comparison of self with peers. A strong positive self-evaluation often relates to the level of education an adolescent expects to obtain and the type of occupation he wishes to achieve. Grade 12 students were asked two types of questions in phase one of the survey; the first required the student to evaluate his or her present abilities in comparison with peers. The second type of question required the student to evaluate his or her present academic abilities with reference to some future educational goal (e.g., graduate from a university). In the following section we will examine the relationship of grades and con-

sistency and both areas of evaluation to consistency.

Academic performance in Grade 11 clearly relates to the continuity between plans and activities among our respondents (Table II.10). Nearly fifty percent of consistents obtained a B or higher average in Grade 11. Inconsistents did not fare nearly as well in that only 36.7% achieved a B or higher average. Thus consistency is strongly associated with academic performance in that consistents achieve higher levels of excellence in their courses than inconsistents.

We would therefore expect consistents to evaluate both their high school abilities and future capacities more favourably than inconsistents. The data do support our expectations. While 48.1% of consistents evaluate their school ability compared with classmates as above average, only 31.5% of inconsistents are equally convinced regarding their abilities (Table II.11). A similar pattern is observed when opinion of one's own work is analyzed (Table II.12). Fully 40.9% of consistents as contrasted with 35.1% of inconsistents claim that their own work is above average.

When we turn to the students' evaluation of their present abilities with respect to some future goal the trend with reference to consistency continues. Fully 69.3% of consistents claimed that they had the ability to graduate from university while 41.8% of inconsistents were equally confident (Table II.13). Grade 12 students were also

asked about the likelihood of their completing advanced study beyond the B.A. degree. Consistents again proved more confident than inconsistents in their ability to complete advanced study; fully 41.5% of consistents and only 17.0% of inconsistents believed it likely that they would complete advanced study of some kind beyond the B.A. level.

Occupational Expectations and Aspirations:

The educational plans of adolescents will vary with the type of occupational expectations and aspirations they formulate. If a student is committed to becoming a doctor he will also plan on an advanced degree. Consistency between intentions and behaviour may also relate to the level of occupational expectations and aspirations. In this section we explore the relationship between consistency and occupational expectations and aspirations. The expectations and aspirations are measured in terms of Blishen's six level index of occupational prestige.

When the relationships between consistency and occupational expectations and aspirations are examined a definite pattern is observed; consistents are more likely than inconsistents to plan on and aspire to higher level occupations (Table II.15 and Table II.16). While 32.7% of consistents aspire to fill highest prestige level occupations only 20.2% of inconsistents have similar aspirations.

The gap is even greater when occupational expectations are examined; fully 27.1% of consistents and only 9.6% of inconsistents expect to or plan on obtaining jobs classified as Blishen one.

II. Consistents and Inconsistents: Fall of 1974

The previous section is devoted to an analysis of the differences among consistents and inconsistents; consistency was defined in terms of the continuity between stated intentions for the Fall of 1973 and the actual activities of respondents in November 1973. The analysis is repeated in this section with consistency defined in terms of the continuity between intentions (stated in Spring 1973) for Fall 1974 and plans for Fall 1974 as stated in November 1973.

Demographic Characteristics and Family Structure:

Consistency and degree of urbanization are associated in that inconsistents are less likely than consistents to live in highly urbanized areas and more likely to reside in rural areas. While 23.7% of consistents come from schools located in urban areas of Ontario; 20.7% of inconsistents live in comparable areas (Table II.17). The percentage difference at the 'urban' end of the continuum is relatively small (3.0%) but relatively high at the rural end (6.6%). Note also that though the pattern identified here is similar to the pattern

identified in the previous section the percentage difference (at the urban end) is greater (8.0%) when consistency is defined as a disparity between intentions and activities.[4]

Consistency is also related to the sex of respondent in that only 45.8% of consistents and fully 53.6% of inconsistents are male (Table II.18); the percentage difference is 7.8% while the percentage difference for consistency A is 5.4%.

Consistency appears to be associated with components of family structure but the relationships are not nearly as strong as those examined for consistency A. Although inconsistents are more likely to come from larger families than consistents the percentage differences are relatively smaller (Table II.19). Thus 28.5% of consistents and 32.8% of inconsistents live with families in which there are five or more children.

Inconsistents are less likely than consistents to be the first born in their families (Table II.20). Thus 36.0% of consistents and 31.8% of inconsistents are first born or a 4.2% percentage difference. This is comparable to the percentage difference observed in Consistency A (4.3%). However, when we examine the "fourth and later born" category we find the percentage difference greater for Consistency A. (9.5%) than Consistency B (3.1%).

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[4] In discussions that follow consistency as defined in section one is labeled Consistency A and consistency defined in this section is labeled Consistency B.

Socio-economic Origin:

The socio-economic origins of respondents are associated with their consistency in plans over time. But again the degree of association in Consistency B is weaker than the associations examined in Consistency A.

When the education of father is related to consistency we observe that 27.8% of consistents and 23.0% of inconsistents have fathers who achieved at least some university training or completed a higher degree (Table II.21). This is a 4.8% difference compared to a 10.6% difference in Consistency A.

An examination of the association between consistency and father's occupational prestige reveals that 19.2% of inconsistents and 16.9% of consistents have fathers who occupy the lowest level of occupational prestige (Table II.22). The percentage difference of 2.3% is obviously less than the 7.0% difference located in Consistency A.

Role of Significant Others:

The patterns in relationship between parental encouragement and consistency are similar to those observed for Consistency A. While 46.8% of consistents' mothers strongly encourage their children to continue their education beyond high school, only 40.5% of inconsistents' mothers exert a similar influence (Table II.23). The percentage difference is 6.3%, while in Consistency A, the difference

is 7.2%. The same pattern is discerned when encouragement by fathers is analyzed; 47.1% of consistents' fathers and 41.8% of inconsistents' fathers strongly encourage their children to pursue a higher education. (Table II.24). The percentage difference is 5.3 whereas the difference in Consistency A is 12.1%.

When we turn to encouragement given by teachers, the direction of the relationship established for mothers and fathers, is the same but weaker (Table II.25). The same observation was drawn when encouragement by teachers was examined in Consistency A.

Academic Performance and Self-evaluation:

Academic performance in Grade 11, clearly relates to consistency in plans (Table II.26). Nearly fifty percent of consistents and only 36.0% of inconsistents achieved a B or higher average in Grade 11. This is a 13.0% difference; for Consistency A the percentage difference is 22.6.

Given these large percentage differences in academic performance between consistents and inconsistents we would also predict that consistents would evaluate their high school abilities and future capacities more favourably than inconsistents. The data support our predictions. While 49.9% of consistents evaluate their school ability compared with classmates as above average, only 35.7% of

inconsistents are equally convinced that their abilities are above average (Table II.27). A similar pattern emerges when opinion of one's own work is analyzed in that fully 49.9% of consistents and only 35.7% of inconsistents claim that their own work is above average (Table II.27). Consistents clearly possess a higher self-evaluation than inconsistents concerning their high school abilities and this relationship is quite similar to that described in Consistency A.

When we turn to the students' evaluation of their present abilities with respect to some future goal the trend observed above continues to be manifested. Fully 66.9% of consistents and only 55.4% of inconsistents believe they have the ability to graduate from university (Table II.29). The percentage difference is 11.5 while the percentage difference for Consistency A is 27.5. Grade 12 students were also asked about the likelihood of their completing advanced study beyond the B.A. degree. Consistents again proved more confident than inconsistents in that 41.8% of the former and 26.1% of the latter group claimed that it was likely that they would complete advanced work beyond the B.A. level (Table II.30). The percentage difference is 15.7 while the difference in Consistency A is 24.5%.

Occupational Expectations and Aspirations:

When the relationships between consistency and occupational expectations and aspirations are examined a definite pattern emerges. Consistents are more likely than inconsistents to plan on and aspire to higher level occupations (Table II.31 and Table II.32). While 34.2% of consistents aspire to fill highest prestige level occupations only 23.3% of inconsistents do. Furthermore, while 27.6% of consistents expect to obtain highest level prestige jobs only 15.7% of inconsistents expect or plan on obtaining such future jobs. Again we may note that the percentage difference in Consistency A is higher (17.5%) than that found in the present analysis (11.9%).

Summary and Conclusions:

Our thesis, as stated at the beginning of this chapter, is that consistents and inconsistents vary substantially on factors associated with their demographic and social background and factors that relate to educational and vocational choices. We suggest that this thesis is largely supported by the analysis reported in the previous two sections. Whether consistency is operationally defined in terms of the fit between intentions and behaviour or the continuity between intentions stated at two different points in time consistents and inconsistents vary markedly on many of the factors

introduced in this analysis.

Adolescents who act in accord with originally stated intentions or fail to modify their plans over time are more likely than inconsistents (that is, adolescents who alter their plans) to: (1) Come from urban areas of Ontario; (2) be in smaller families where they are positioned at the low end of the ordinal structure; (3) have more prestigious socio-economic origins; (4) receive greater parental encouragement to continue higher studies; (5) achieve higher grade point average and possess more favourable self-evaluations concerning their abilities and (6) possess greater expectations and aspirations concerning their future occupational roles.

This summary provides information for developing a profile of the differences between consistents. What it fails to do is offer the reader some idea concerning which factors most strongly discriminate between consistents and inconsistents. To accomplish this task discriminant function analysis is employed.[5] "Discriminant analysis enables one to find out whether there is a compound score of the variables that differentiates optimally between the subgroups, to specify this compound score, and to find out how far it can be used to decide which subgroup an individual probably belongs to."[6] Our

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5 For a lucid discussion of discriminant function analysis see Van de Geer, Introduction to Multivariate Analysis for the Social Sciences, W. H. Freeman and Company, 1971, pages 243-272.

6 Ibid., page 243.

present interest in discriminant analysis focuses on its ability to indicate, for a number of subgroups, the relative power of discrimination of factors or variables employed in the analysis.

Our objective involves the identification of the relative discriminatory power of the variables employed in developing a profile of consistents and inconsistents. We know that the perceived ability to graduate from university, grades, parental encouragement, etc., help in differentiating consistents and inconsistents. What we still need to know is the rank order of importance of these factors or variables.

Discriminant analysis is applied to our dual definition of consistency, that is, consistency between intentions and present behaviour (Plans for 1973) and consistency between intentions stated at two stages in time (Plans for 1974).

The analysis is further divided into two sections. The first section offers a rank order in importance of only objective discriminatory variables. The second section offers a rank order in importance of both objective and subjective variables.[7] Subjective variables refer to factors measured in terms of the perception or evaluation of respondents. For example, Grade 12 students were asked to indicate the degree of encouragement received from parents. Their assessment was, by definition, a subjective evaluation. On the other hand, sex,

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[7] The variables used in the discriminant analysis are all standardized; standardization is necessary in order to achieve comparability between distributions.

family size and strata are objective variables in that they characterize the environment of respondents and do not incorporate a subjective element.[8]

The rank order in importance of objective discriminants in our analysis of consistency is substantially different for plans 1973 and plans 1974 (Table II.33). When consistency is measured in terms of the continuity between intentions for Fall 1973 and actual activities in the Fall of 1973, grades appear to be the most powerful variable in discriminating between consistents and inconsistents. The occupational prestige of father is second in importance while family size is third in importance. These variables are then followed by strata and sex in that order. When we turn to the consistency analysis for plans 1974, the rank ordering of discriminatory variables changes. We still find that grades are the most powerful discriminant. This is followed by strata, sex, occupational prestige of father and family size in decreasing rank of importance.

When subjective variables are added to the discriminant analysis the rank order among the variables alter substantially; this applies both to the consistency for plans in 1973 and plans in 1974 (Table II.34). If consistency, defined as the continuity between

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8 These variables are "subjective" only insofar as they may result from the perceptions of respondents. However, they unfortunately lack an evaluatory component.

intentions and activities. is considered, the perceived ability to graduate from university ranks first in its capacity to discriminate between consistents and inconsistents. Then, in decreasing order of importance are: grades, parental encouragement, occupational aspirations, family size, sex, occupational prestige of father, strata, and present abilities index. If consistency, defined as the continuity between intentions stated at two stages is considered, present abilities index ranks foremost in its ability to distinguish consistents and inconsistents. Then, in decreasing order of importance are: occupational aspirations, sex, parental encouragement, grades, strata, occupational prestige of father, ability to graduate from university.

Several important points are raised by the preceding analysis. First, the discriminatory ability of any one variable depends on the definition of consistency. The extreme illustration of this point involves the present abilities index. While it ranks last in the consistency analysis for plan in 1973 it clearly ranks first when consistency in plans for 1974 is considered. Second, subjective variables are generally more powerful than objective variables in discriminating between consistents and inconsistents. When the top five discriminatory variables are considered (in both the consistency analysis for 1973 and 1974) three of the five variables are subjective. Third, when the top five discriminating variables are considered (in both

the consistency analysis for 1973 and 1974) three variables common to both analysis can be identified as strong discriminators. They are grades, occupational aspirations and parental encouragement. Whether consistency is defined as a fit between intentions and behaviours or intentions at two points of time, variations in academic performance, occupational aspirations and parental encouragement to continue education beyond high school appear to strongly differentiate between consistents and inconsistents.

We suggest that variations in the rank ordering among variables employed to discriminate between consistents and inconsistent relate to the nature of the choice that adolescents must make. If an adolescent must choose between entering Grade 13, a C.A.A.T. or obtaining a job but then changes his mind the factors influencing this change may differ from the situation where an adolescent must make a long term decision between university, a C.A.A.T. or entering the labour force and then subsequently alters his decision. While grades may be quite important in both situations, socio-economic status may be crucial in deciding whether an adolescent enters Grade 13. Its significance is reduced once the adolescent enters Grade 13. Other factors then take an additional importance in making long-term decisions (e.g. whether to enter university) and also affects a change in these decisions.

Table II.1: Consistency and Degree of Urbanization: Plans for Fall 1973

	Degree of Urbanization				
	Urban			Rural	
Consistent	24.6	21.5	23.6	30.3	67512.5 72.4
Inconsistent	16.6	22.7	23.9	36.9	25679.1 27.6
	20837.6 22.4	20361.8 21.8	22051.4 23.7	29940.8 32.1	93191.6 100.0

Table II.2: Consistency and Sex: Plans for Fall 1973

	Sex		
	Male	Female	
Consistent	47.8	52.2	67471. 72.5
Inconsistent	53.2	46.8	25559.9 27.5
	45865.3 49.3	47166.2 50.7	93031.5 100.0

Table II.3: Consistency and Number of Children in the Family: Plans for Fall 1973

	Number of Children in Family						
	One	Two	Three	Four	Five	Six or more	
Consistent	4.0	21.2	28.7	18.4	11.8	15.9	67265.2 72.6
Inconsistent	3.7	17.4	21.8	19.3	12.8	25.0	25429.4 27.4
	3624.2 3.9	18680.2 20.2	24845.4 26.8	17285.5 18.6	11201.6 12.1	17057.7 18.4	92694.6 100.0

Table II.4: Consistency and Birth Rank: Plans for Fall 1973

	Birth rank				
	First born	Second	Third	Fourth and later born	
Consistent	35.3	30.2	20.1	14.4	67356.7 72.4
Inconsistent	30.9	27.0	18.2	23.9	25639.3 27.6
	31685.1 34.1	27288.9 29.3	18191.0 19.6	15831.0 17.0	92996.0 100.0

Table II.5: Consistency and Father's Education: Plans for Fall 1973

	Father's Education					
	Some elementary	Completed elementary	Some secondary	Completed secondary	Some university and completed higher degree	
Consistent	11.5	16.6	24.8	18.6	28.5	61169.1 72.9
Inconsistent	13.3	23.9	26.5	18.5	17.9	22698.8 27.1
	10060.6 12.0	15559.4 18.6	21205.8 25.3	15557.4 18.5	21484.7 25.6	83867.9 100.0

Table II.6: Consistency and Father's Occupational Prestige: Plans for Fall 1973

	Father's occupational prestige						
	Blishen one	Blishen two	Blishen three	Blishen four	Blishen five	Blishen six	
Consistent	9.5	13.7	10.6	16.4	33.8	16.0	65908.0 72.7
Inconsistent	5.3	8.0	7.8	15.5	40.3	23.0	24700.1 27.3
	7586.7 8.4	10984.0 12.1	8948.3 9.9	14634.4 16.2	32239.2 35.6	16215.5 17.9	40608.1 100.0

Table II.7: Consistency and Encouragement by Mother: Plans for Fall 1973

	Encouragement by mother					
	Encouraged very much				Discouraged very much	
Consistent	45.9	20.4	15.3	15.5	2.9	63776.8 73.3
Inconsistent	38.7	18.5	17.1	19.1	6.7	23228.6 26.7
	38266.7 44.0	17278.5 19.9	13728.7 15.8	14323.2 16.5	3408.3 3.9	87005.4 100.0

Table II.8: Consistency and Encouragement by Father: Plans for 1973

Encouragement by father

	Encouraged very much				Discouraged very much	
Consistent	48.0	19.1	13.0	16.2	3.7	61160.3 73.4
Inconsistent	35.9	18.8	15.3	21.4	8.5	22197.5 26.6
	37307.7 44.8	15839.3 19.0	11364.9 13.6	14691.0 17.6	4154.9 5.0	83357.8 100.0

Table II.9: Consistency and Encouragement by Teachers: Plans for Fall 1973

	Encouragement by teachers					
	Encouraged very much				Discouraged very much	
Consistent	28.6	24.5	19.8	21.3	5.7	52630.0 72.8
Inconsistent	26.5	20.2	19.5	25.0	8.8	19661.7 27.2
	20250.1 28.0	16888.4 23.4	14246.0 19.7	16150.1 22.3	4757.1 6.6	72291.7 100.0

Table II.10: Consistency and Averages in Grade 11: Plans for Fall 1973

	Averages in Grade 11				
	80+	70-79	60-69	59 and less	
Consistent	11.8	37.5	42.1	8.6	66364.7 72.7
Inconsistent	2.3	24.4	56.1	17.2	24930.9 27.3
	8399.5 9.2	30972.0 33.9	41947.4 45.9	9976.7 10.9	91295.6 100.0

Table II.11: Consistency and School Ability Compared to Classmates: Plans for Fall 1973

School ability compared to classmates

	Above average	Average	Below average	
Consistent	48.1	46.8	5.0	67341.7 72.5
Inconsistent	31.5	60.1	8.5	25580.5 27.5
	40450.4 43.5	46909.5 50.5	5562.3 6.0	92922.2 100.0

Table II.12: Consistency and Opinion of Own Work: Plans for Fall 1973

	Opinion of own work			
	Above average	Average	Below average	
Consistent	55.1	38.9	6.0	67244.1 72.5
Inconsistent	40.9	49.4	9.7	25451.3 27.5
	47447.6 51.2	38753.9 41.8	6493.9 7.0	92695.4 100.0

Table II.13: Consistency and Ability to Graduate from University: Plans for Fall 1973

	Ability to graduate from university			
	Yes	Not sure	No	
Consistent	69.3	19.0	11.7	66923.7 72.6
Inconsistent	41.8	35.4	22.8	25317.0 27.4
	56972.4 61.8	21665.5 23.5	13602.8 14.7	92240.7 100.0

Table II.14: Consistency and Likeliness of Advanced Study: Plans for Fall 1973

	Likeliness of advanced study			
	Likely	Not sure	Unlikely	
Consistent	41.5	27.0	31.5	66957.5 72.6
Inconsistent	17.0	25.6	57.4	25284.9 27.4
	32088.9 34.8	24555.8 26.6	35597.7 38.6	92242.4 100.0

Table II:15: Consistency and Prestige of Occupational Aspirations: Plans for Fall 1973

	Prestige of occupational aspirations					
	Blishen one	Blishen two	Blishen three	Blishen four	Blishen five	Blisher
Consistent	32.7	14.5	21.0	15.4	10.1	6.2
Inconsistent	20.2	11.3	22.8	22.7	16.6	6.3
	25841.3 29.3	12030.0 13.7	18935.4 21.5	15349.8 17.4	10495.3 11.9	5479.6 6.2

Table II.16: Consistency and Prestige of Occupational Expectations: Plans for Fall 1973

	Prestige of occupational expectations						
	Blishen one	Blishen two	Blishen three	Blishen four	Blishen five	Blishen six	
Consistent	27.1	10.9	19.2	18.3	12.1	12.4	60391.5 72.4
Inconsistent	9.6	7.3	32.3	24.3	17.2	19.3	22974.8 27.6
	18579.0 22.3	8271.1 9.9	16705.9 20.0	16632.5 20.0	11282.3 13.5	11895.5 14.3	83366.3 100.0

Table II.17: Consistency and Degree of Urbanization: Plans After Graduation

Degree of urbanization

	Urban			Rural	
Consistent	23.7	23.3	23.5	29.5	51238.3 55.0
Inconsistent	20.7	20.1	23.9	35.3	41953.3 45.0
	20837.6 22.4	20361.8 21.8	22051.4 23.7	29940.8 32.1	93191.6 100.0

Table II.18: Consistency and Sex: Plans After Graduation

	Sex		
	Male	Female	
Consistent	45.8	54.2	51200.8 55.0
Inconsistent	53.6	46.4	41830.7 45.0
	45865.3 49.3	47166.2 50.7	93031.5 100.0

Table II.19: Consistency and Number of Children in the Family: Plans after Graduation

	Number of children in the family						
	one	two	three	four	five	six or more	
Consistent	4.7	21.5	26.4	18.8	10.7	17.8	50971.5 55.0
Inconsistent	2.9	18.5	27.3	18.5	13.7	19.1	41723.1 45.0
	3624.2 3.9	18680.2 20.2	24845.4 26.8	17285.5 18.6	11201.6 12.1	17057.7 18.4	92694.6 100.0

Table II.20: Consistency and Birth Rank: Plans After Graduation

	Birth rank				
	First born	Second	Third	Fourth and later born	
Consistent	36.0	28.9	19.5	15.6	51120.5 55.0
Inconsistent	31.8	29.9	19.6	18.7	41875.5 45.0
	31685.1 34.1	27288.9 29.3	18191.0 19.6	15831.0 17.0	92996.0 100.0

Table II.21: Consistency and Father's Education: Plans After Graduation

	Father's education					
	Some elementary	Completed elementary	Some secondary	Completed secondary	Some university and completed higher degree	
Consistent	10.7	18.2	24.4	18.8	27.8	46270.9 55.2
Inconsistent	13.6	18.9	26.3	18.2	23.0	37597.0 44.8
	10060.6 12.0	15559.4 18.6	21205.8 25.3	15557.4 18.5	21484.7 25.6	83867.9 100.0

Table II.22: Consistency and Father's Occupational Prestige: Plans after Graduation

Father's occupational prestige

	Blishen one	Blishen two	Blishen three	Blishen four	Blishen five	Blishen six	
Consistent	9.3	14.1	9.4	16.2	34.1	16.9	49823.6 55.0
Inconsistent	7.2	9.7	10.4	16.1	37.4	19.2	40784.5 45.0
	7586.7 8.4	10984.0 12.1	8948.3 9.9	14634.4 16.2	32239.2 35.6	16215.5 17.9	90608.1 100.0

Table II.23: Consistency and Encouragement by Mother: Plans After Graduation

	Encouragement by mother					
	Encouraged very much				Discouraged very much	
Consistent	46.8	19.0	14.7	15.8	3.5	47939.1 55.1
Inconsistent	40.5	20.9	17.1	17.2	4.4	39066.3 44.9
	38266.7 44.0	17278.5 19.9	13728.7 15.8	14323.2 16.5	3408.3 3.9	87005.4 100.0

Table II.24: Consistency and Encouragement by Father: Plans After Graduation

	Encouragement by father					
	Encouraged very much				Discouraged very much	
Consistent	47.1	18.7	13.6	15.9	4.7	46249.2 55.5
Inconsistent	41.8	19.4	13.7	19.7	5.4	37108.6 44.5
	37307.7 44.8	15839.3 19.0	11364.9 13.6	14691.0 17.6	4154.9 5.0	93357.8 100.0

Table II.25: Consistency and Encouragement by Teachers: Plans After Graduation

Encouragement by teachers

	Encouraged very much				Discouraged very much	
Consistent	29.6	23.9	20.4	20.2	5.8	39454.8 54.6
Inconsistent	26.1	22.7	18.9	24.9	7.5	32836.9 45.4
	20250.1 28.0	16888.4 23.4	14246.0 19.7	16150.1 22.3	4757.1 6.6	72291.7 100.0

Table II.26: Consistency and Averages in Grade 11: Plans After Graduation

Averages in Grade 11

	80+	70-79	60-69	59 and less	
Consistent	12.9	36.1	42.4	8.7	50202.2 55.0
Inconsistent	4.7	31.3	50.3	13.7	41093.4 45.0
	8399.5 9.2	30972.0 33.9	41947.4 45.9	9976.7 10.9	91295.6 100.0

Table II.27: Consistency and School Ability Compared to Classmates: Plans After Graduation

	School ability compared to classmates			
	Above average	Average	Below average	
Consistent	49.9	45.5	4.6	51167.3 55.1
Inconsistent	35.7	56.6	7.7	41754.9 44.9

Table II.28: Consistency and Opinion of Own Work: Plans After Graduation

	Opinion of Own Work			
	Above average	Average	Below average	
Consistent	57.0	37.8	5.3	51081.0 55.1
Inconsistent	44.1	46.7	9.2	41614.4 44.9
	47447.6 51.2	38753.9 41.8	6493.9 7.0	92695.4 100.0

Table II.29: Consistency and Ability to Graduate from University: Plans after Graduation

	Ability to graduate from university			
	Yes	Not Sure	No	
Consistent	66.9	19.6	13.5	50799.1 55.1
Inconsistent	55.4	28.3	16.3	41441.6 44.9
	56972.4 61.8	21665.5 23.5	13602.8 14.7	92240.7 100.0

Table II.30: Consistency and Likeliness of Advanced Study: Plans After Graduation

	Likeliness of advanced study			
	Likely	Not Sure	Unlikely	
Consistent	41.8	24.8	33.3	50912.3 55.2
Inconsistent	26.1	28.8	45.1	41330.1 44.8
	32088.9 34.8	24555.8 26.6	35597.7 38.6	92242.4 100.0

Table II.31: Consistency and Prestige of Occupational Aspirations: Plans After Graduation

	Prestige of occupational aspirations						
	Blishen one	Blishen two	Blishen three	Blishen four	Blishen five	Blishen six	
Consistent	34.2	13.3	23.3	14.9	9.5	4.8	48677.8 55.2
Inconsistent	23.8	14.0	19.3	20.5	14.9	7.9	39453.6 44.8
	25841.3 29.3	12030.0 13.7	18935.4 21.5	15349.8 17.4	10495.3 11.9	5479.6 6.2	88131.4 100.0

Table II.32: Consistency and Prestige of Occupational Expectations: Plans After Graduation

	Prestige of occupational expectations						
	Blishen one	Blishen two	Blishen three	Blishen four	Blishen five	Blishen six	
Consistent	27.6	10.8	20.8	18.9	9.7	12.2	46242.3 55.5
Inconsistent	15.7	8.8	19.1	21.2	18.4	16.8	37124.0 44.5
	18579.0 22.3	8271.1 9.9	16705.9 20.0	16632.5 20.0	11282.3 14.3	11895.5 14.3	83366.3 100.0

Table II.33: Rank Order in Importance of Objective Discriminants in Consistency Analysis for Plans 1973 and Plans 1974

Plans for 1973: Consistency

Variable	F Value[1]	Rank Order of Importance
Grades	41467.3	1
Occupational prestige of father	10006.4	2
Family size	5998.5	3
Strata	1359.0	4
Sex	237.0	5

Plans for 1974: Consistency

Variable	F Value	Rank Order of Importance
Grades	20608.8	1
Occupational prestige of father	1576.9	4
Family size	761.3	5
Strata	4659.8	2
Sex	3184.0	3

[1] The size of the F value is directly proportional to the discriminatory power of the variable; only variables whose F values are significant at the 0.01 level are included in the rank ordering of variables.

Table II.34: Rank Order in Importance of Objective and Subjective Discriminants in Consistency Analysis for Plans 1973 and Plans 1974.

Plans for 1973: Consistency

Variable	F value[1]	Rank order of importance
Ability to graduate from university	40276.1	1
Grades	14957.9	2
Parental encouragement[b]	7535.6	3
Occupational aspirations	5529.9	4
Family size	2708.8	5
Sex	1283.5	6
Occupational prestige of father	1012.7	7
Strata	149.8	8
Present abilities index[c]	64.6	9

Plans for 1974: Consistency

Variable	F value[1]	Rank order of importance
Ability to graduate from university	113.9	8
Grades	2271.4	5
Parental encouragement[b]	2945.1	4
Occupational aspirations	10521.6	2
Family size[a]	--	
Sex	4794.3	3
Occupational prestige of father	638.5	7
Strata	2292.9	6
Present abilities index[c]	19513.1	1

[1] The size of the F value is directly proportional to the discriminatory power of the variable; only variables whose F values are significant at the 0.01 level are included in the rank ordering of variables.

[a] Family size is omitted from the rank ordering of variables in that its F value is not significant at the 0.01 level.

[b] Encouragement by mother and father are combined to formulate an index of parental encouragement.

[c] Self-evaluation in comparison with classmates is combined with evaluation of one's own work to formulate present abilities index.

CHAPTER THREE

Grade 12 Students: Six Months Later

All Grade 12 students who completed questionnaires in Spring 1973 are presently involved in a variety of activities - including Grade 13, Colleges of Applied Arts and Technology, the labour market, etc.[1] This chapter focuses on the similarities and differences among adolescents who decided to choose these options.[2]

The areas we shall cover are identical to those covered in Chapter Two. These are: (1) Demographic and family structure (2) socio-economic origin (3) the role of significant others (4) academic performance and self-evaluation and (5) occupational expectations and aspirations.

Demographic Characteristics and Family Structure:

The degree of urbanization is related to the present activities of adolescents in that while only 26.4% of Grade 13 students live in rural areas, 41.0% of adolescents now fully employed, 35.5% of people

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1 To simplify analysis, four categories are employed; they are Grade 13, Job, C.A.A.T. (this includes nursing) and "all other activities."

2 We also performed analysis of the adolescents in terms of their stated intentions for the Fall 1974; the patterns identified were similar to those reported in The Critical Juncture and will therefore not be repeated in this chapter.

in C.A.A.T.s and 36.3% of those involved in other[3] types of activities live in predominantly rural areas (Table III.1).

The present activities of adolescents are also related to their sex; males predominate among Grade 13 students (52.9%) while C.A.A.T.s draw disproportionately more females (62.4%) than males (Table III.2). We may also observe that the labour market initially attracts a greater proportion of females (53.6%) than males while an equal proportion of males and females became involved in other types of activities.

When we turn to a consideration of family structure several observations can be made. First, adolescents who entered Grade 13 or enrolled in C.A.A.T.s are less likely to come from large families than adolescents who either entered the work force or became involved in some other type of activity (Table III.3). While only 24.3% of Grade 13 students and 29.3% of adolescents now in C.A.A.T.s come from families where there are five or more children 39.5% of adolescents presently working and 40.6% of those engaged in other activities come from comparably large families.

A second observation is that the greatest proportion of first born is located within our Grade 13 subgroup; 37.1% of Grade 13 students are first born in their families (Table III.4). Adolescents

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[3]The 'other' category consists of adolescents now in part-time studies, trade schools, apprenticeship programs, etc.

who selected other types of activities (e.g., trade schools) are least likely to be first born (26.7%) and adolescents who entered the labour force are intermediate in that 30.6% are first born.

Socio-economic Origin:

The socio-economic origins of adolescents who choose to continue their studies in Grade 13 contrasts most sharply with the origins of adolescents who decide on other alternatives. Whether formal education or occupational prestige of father is employed as a measure of social class, Grade 13 students are relatively more advantaged than adolescents who are now working, attending C.A.A.T.s or engaged in other activities. Fully 36.4% of Grade 13 students have fathers who have obtained either some university education or have completed a higher degree. Only 14.1% of adolescents now working, 17.4% of those studying in C.A.A.T.s and 20.0% of those who selected other alternatives could make a similar claim (Table III.5).

This pattern continues when we consider the occupational prestige of respondents' fathers. While 27.8% of Grade 13 students have fathers who hold jobs classified as either Blishen one or Blishen two (upper middle class) only 8.7% of adolescents now working, 13.6% of those enrolled in C.A.A.T.s and 18.4% who are now engaged in other activities stated that their fathers hold jobs that could be classified

as upper middle class (Table III.6).

Role of Significant Others:

Our results indicate that adolescents who continue on to Grade 13 or enrol in C.A.A.T.s receive a significantly greater amount of encouragement from parents and teachers alike, to continue their education beyond high school. This generalization is documented when the relationship between mother's encouragement and present activities is analyzed. Fully 51.0% of Grade 13 students and 48.9% of adolescents presently in C.A.A.T.s perceive strong encouragement from their mothers while 28.0% of those now working and 38.4% who are involved in other activities have similar perceptions (Table III.7). This pattern is maintained when father's encouragement becomes the focus for analysis (Table III.8). While 52.4% of Grade 13 students and 49.0% of those adolescents now enrolled in C.A.A.T.s claim that their fathers encourage them very much in continuing their studies, only 28.9% of those working and 34.9% of adolescents presently involved in other types of activities expressed the same sentiment.

The pattern continues when we turn to encouragement by teachers, but the percentage differences among the subgroups are smaller (Table III.9). Thus, 30.6% of Grade 13 students and 32.4% of

respondents who now attend C.A.A.T.s perceive that teachers are a strong source of support. Only 22.6% of adolescents now in the labour force and 23.5% of those engaged in alternative activities also claim that teachers offered them strong encouragement to continue their studies beyond high school.

Academic Performance and Self-evaluation:

Grade point average strongly differentiates those adolescents who elected to enter Grade 13 from adolescents who obtained jobs, entered C.A.A.T.s or selected some other alternative activity (Table III.10). While less than 30.0% of these latter groups achieved a B or higher average in Grade 11 fully 56.1% of adolescents who entered Grade 13 in the Fall of 1973 had obtained B or higher averages in Grade 11.

Given the large percentage differences in grade averages between Grade 13 students and adolescents who decide on alternative activities we would also expect Grade 13 students to evaluate their high school abilities and future chances of success more favourably. This expectation receives ample support when the data on self-evaluation are analyzed. We find that Grade 13 students both evaluate their school ability compared to classmates and opinion of their own work more favourably than adolescents in all other groups

(Table III.11 and Table III.12). For example, 54.7% of Grade 13 students stated that their self-evaluation of school ability compared with classmates is above average; adolescents who chose other types of activities come second in that 33.6% also perceive themselves as above average. While 60.9% of Grade 13 students claimed that their own work is above average approximately 4 in 10 adolescents in all other subgroups expressed equal confidence concerning their school-work.

Respondents were also asked to provide us with some notion of their ability to graduate from university and the likelihood of completing advanced study. Results indicate that adolescents who continued on to Grade 13 express a substantially greater degree of confidence concerning their abilities to graduate from university and complete advanced study than adolescents presently involved in other activities. For instance, while 81.9% of Grade 13 students believe they can graduate from university only 34.5% of those now working, 44.9% of adolescents currently enrolled in C.A.A.T.s and 42.1% of those engaged in other activities voiced similar confidence in their ability (Table III.13). Over half of Grade 13 students believe it likely that they will complete advanced study beyond the B.A. level while less than a quarter of any other subgroup share a comparable belief (Table III.14).

Occupational Expectations and Aspirations:

We might expect that the attributes of Grade 13 students, as described in preceding sections, would also result in higher occupational expectations and aspirations for these students. The findings support our expectation in that 42.7% of Grade 13 students expressed job aspirations of high prestige (Blishen one), while fewer than 2 in 10 adolescents who are now working, studying at C.A.A.T.s or engaged in other activities desire occupations of comparable prestige (Table III.15). Furthermore, fully 36.7% of Grade 13 students expect to obtain jobs classified as Blishen one, while only 2.7% of those presently working in full time jobs, 8.2% of students enrolled in C.A.A.T.s and 11.6% of adolescents presently doing other types of things expect that they will obtain high prestige jobs in the future (Table III.16).

Summary and Conclusions:

Our findings indicate that adolescents who continued their education into Grade 13 differ from adolescents who either entered the labour force, enrolled in C.A.A.T.s or chose other types of activities. Grade 13 students are more likely to reside in urban areas in Ontario and come from smaller families in which they tend to be first born. Their socio-economic origins place them in more

advantaged positions than adolescents currently engaged in alternative activities. These same students receive a greater degree of encouragement to continue their education beyond high school. This greater encouragement appears warranted in that the grade point averages of these students are substantially higher than the averages of all other subgroups. Moreover, Grade 13 students are a good deal more confident that they possess the ability to graduate from university and they also express higher occupational aspirations and expectations than adolescents presently engaged in other kinds of activities.

This summary provides information for developing a profile that would distinguish Grade 13 students from those adolescents who elect to enter the job market, C.A.A.T.s etc. What it fails to do is offer the reader some notion concerning which factors most strongly discriminate among the different subgroups - both in terms of present activities of adolescents and their plans for the Fall of 1974. To accomplish this task, we employ discriminant function analysis once again. This analysis serves to reveal the rank order in importance of objective discriminants as they relate both to present activities of adolescents and their plans after graduation. In addition discriminant analysis is employed to reveal the rank order in importance of <u>both</u> objective and subjective discriminants as they relate both to present activities of adolescents and their plans

after graduation.[4]

The most powerful objective discriminant, whether we consider the present activities of adolescents or their intentions for the Fall of 1974, is grades (Table III.17). Academic performance in Grade 11 appears to provide the strongest objective factor in distinguishing among adolescents who are now either in Grade 13, C.A.A.T.s or jobs and also acts as the most powerful objective factor in differentiating adolescents who plan on entering university, C.A.A.T.s, the work force, etc., after they graduate from high school. The rank order in importance of objective discriminants as they relate to the present activities of adolescents are: grades, occupational prestige of father, sex of respondent, family size and strata. This rank order of objective discriminants also applies to plans for the Fall of 1974 except that the rank order of family size and strata is reversed (strata is fourth while family size is fifth in importance).

When subjective discriminants are added to the analysis the rank ordering among the variables alter substantially. This applies both to our analysis of adolescents' present activities and their plans for the Fall of 1974 (Table III.18). If the present activities of adolescents are considered, the perceived ability to graduate from university ranks first in its capacity to discriminate among

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[4] See Chapter Two for an operational definition of objective and subjective discriminants.

adolescents now in Grade 13, the labour market, C.A.A.T.s or alternative activities. Then, in descending order of rank order importance we find: occupational aspirations, parental encouragement, grades, occupational prestige of father, sex, family size, strata and present abilities index. When we turn to the future plans of adolescents for the Fall of 1974 (e.g., university, C.A.A.T., labour market); the perceived ability to graduate from university once again ranks first in its capacity to discriminate among the subgroups. Then, in descending order of importance are: occupational aspirations, parental encouragement, sex, grades, strata, occupational prestige of father, family size and present abilities index.

Several important points may be established by this type of analysis. First, subjective discriminants are generally more powerful than objective discriminants in distinguishing among subgroups; this is valid whether the present activities of adolescents or their future intentions are considered. For instance, the three top discriminating factors in both analysis are ability to graduate from university, occupational aspirations, and parental encouragement. All three factors are subjective discriminants.

A second important point is that the discriminating ability of variables varies with our definition of subgroups. Therefore the rank order in importance of discriminants relative to adolescents'

present activities differs from the rank order of discriminants when applied to their plans in 1974. The occupational prestige of father is a more power discriminant when the present activities of adolescents are analyzed than when the future intentions of adolescents are considered. The sex and place of residence of respondents would appear to be more salient when adolescents' plans after graduation are discussed than in an analysis of present activities.

A comparison of specific subgroups in terms of objective and subjective discriminants reveals a number of slight but interesting variations.[5] The three most powerful discriminants for distinguishing adolescents now in Grade 13 from adolescents currently working are: Ability to graduate from university, occupational aspirations and parental encouragement. If adolescents who are presently in the labour market are compared to adolescents now in C.A.A.T. most powerful discriminants become: Parental encouragement, occupational aspirations and sex.

When we turn to a comparison of those now in Grade 13 with adolescents enrolled in C.A.A.T.s the three most powerful discriminants are: Ability to graduate from university, grades and sex. We suggest that these variations relate

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[5] The tables for these subgroup comparisons are not presented here in that there are too many comparisons.

to the type of choice made by adolescents; parental encouragement will influence an adolescent's choice between enrolling in a C.A.A.T. or obtaining a job but becomes relatively less important in influencing a choice between Grade 13 and a C.A.A.T. Parental encouragement is, to a large extent, a common characteristic in the latter choice and therefore not a powerful discriminant.

A series of equally relevant comparisons can be made when the intentions of adolescents for the Fall of 1974 are considered. The three most powerful discriminants for differentiating adolescents who intend enrolling in universities or C.A.A.T.s are: Ability to graduate from university, occupational aspirations and grades. When adolescents who intend enrolling in universities are contrasted with adolescents who plan on obtaining employment the three most powerful discriminants become: Ability to graduate from university, occupational aspirations and parental encouragement.

Our final comparison involves adolescents who intend to enrol in C.A.A.T.s and adolescents who plan on entering the labour market. The three most powerful discriminants in this comparison are: Parental encouragement, occupational aspirations and sex. We again suggest that variations in the rank order of importance of discriminants relate to the type of decisions that adolescents must make. For example, confidence in one's ability to graduate from university

will probably be quite important in choosing between university and a job or university and a C.A.A.T. However, a perception of one's ability to graduate from university is irrelevant for choosing between a job and enrolling in a C.A.A.T.

Table III.1: Activity in Fall 1973 and Degree of Urbanization

	Degree of urbanization				
	Urban			Rural	
Grade 13	26.2	23.6	23.9	26.4	49596.5 53.2
Job	18.2	18.4	22.4	41.0	22860.5 24.5
CAAT	21.6	20.0	22.9	35.5	4358.6 10.0
Other	14.9	22.9	25.9	36.3	11342.1 12.2
	20837.6 22.4	20361.8 21.9	22051.4 23.7	29906.9 32.1	93157.7 100.0

Table III.2: Activity in Fall 1973 and Sex

	Sex		
	Male	Female	
Grade 13	52.9	47.1	49555.6 53.3
Job	46.4	53.6	22781.1 24.5
CAAT.	37.6	62.4	9358:6 10.1
Other	49.4	50.6	11302.2 12.2
	45865.3 49.3	47132.3 50.7	92997.6 100.0

Table III.3: Activity in Fall 1973 and Number of Children in the Family

	Number of children						
	one	two	three	four	five	six or more	
Grade 13	3.9	22.4	29.5	19.9	11.6	12.7	49432.6 53.3
Job	3.8	16.7	24.4	15.6	12.4	27.1	22567.2 24.4
CAAT	4.2	21.4	26.2	19.0	9.5	19.8	9358.6 10.1
Other	4.1	16.2	20.6	18.8	15.6	24.7	11302.3 12.2
	3624.2 3.9	18680.2 20.2	24845.4 26.8	17251.6 18.6	11201.6 12.1	17057.7 18.4	92660.7 100.0

Table III.4: Activity in Fall 1973 and Birth Rank

	Birth rank				
	First born	Second	Third	Fourth and later born	
Grade 13	37.1	29.8	20.7	12.5	49511.4 53.3
Job	30.6	30.5	16.0	22.9	22789.8 24.5
CAAT	35.7	28.0	18.2	18.1	9358.6 10.1
Other	26.7	26.1	23.0	24.2	11302.3 12.2
	31685.1 34.1	27255.0 29.3	18191.0 19.6	15831.0 17.0	92962.1 100.0

Table III.5: Activity in Fall 1973 and Father's Education

	Father's education					
	Some elementary	Completed elementary	Some secondary	Completed secondary	Some university and completed higher degree	
Grade 13	9.4	13.2	22.7	18.4	36.4	46385.6 54.2
Job	15.6	26.1	28.3	15.7	14.1	20345.8 23.8
CAAT	12.9	26.5	21.9	21.2	17.4	8609.9 10.1
Other	13.4	17.6	29.5	19.5	20.0	10299.7 12.0
	10026.7 11.7	15559.4 18.2	21205.8 24.8	15557.4 18.2	22291.7 27.2	85641.0 100.0

Table III.6: . Activity in the Fall 1973 and Father's Occupational Prestige

	Blishen one	Blishen two	Blishen three	Blishen four	Blishen five	Blishen six	
Grade 13	12.1	15.6	11.6	17.0	30.0	13.7	48411.8 53.4
Job	2.9	5.8	6.4	15.2	43.3	26.4	22114.3 24.4
CAAT	3.3	10.3	11.0	15.7	38.9	20.8	9243.2 10.2
Other	7.1	11.3	8.2	14.9	41.9	16.6	10804.9 11.9
	7586.7 8.4	10984.0 12.1	8948.3 9.9	14634.4 16.2	32239.2 35.6	16181.6 17.9	90574.2 100.0

Table III.7: Activity in Fall 1973 and Encouragement by Mother

	Encouragement by mother					
	Encouraged very much				Discouraged very much	
Grade 13	51.0	21.0	14.3	11.6	2.1	47742.5 54.9
Job	28.0	16.9	19.8	26.1	9.1	20092.9 23.1
CAAT	48.9	20.1	12.7	17.5	0.9	8871.3 10.2
Other	38.4	20.2	17.7	19.2	4.5	10264.8 11.8
	38266.7 44.0	17278.5 19.9	13728.7 15.8	14323.2 16.5	3374.4 3.9	86971.5 100.0

Table III.8: Activity in Fall 1973 and Encouragement by Father

	Encouragement by father					
	Encouraged very much				Discouraged very much	
Grade 13	52.4	20.4	11.6	13.0	2.6	46314.2 55.6
Job	28.9	16.7	14.0	29.4	11.0	18400.5 22.1
CAAT	49.0	14.8	16.3	16.9	3.1	8699.4 10.4
Other	34.9	20.4	20.2	18.1	6.4	9908.0 11.9
	37307.7 44.8	15839.3 19.0	11364.9 13.6	14691.0 17.6	4121.0 4.9	83323.9 100.0

Table III.9: Activity in Fall 1973 and Encouragement by Teachers.

Encouragement by teachers

	Encouraged Very much				Discouraged very much	
Grade 13	30.6	25.4	18.6	20.3	5.1	39490.6 54.7
Job	22.6	21.6	19.6	26.7	9.6	17312.3 24.0
CAAT	32.4	23.1	16.9	21.1	6.4	7238.3 10.0
Other	23.5	17.6	27.2	24.0	7.6	8216.6 11.4
	20250.1 28.0	16888.4 23.4	14212.1 19.7	16150.1 22.4	4757.1 6.6	72257.8 100.0

Table III.10: Activity in Fall 1973 and Averages in Grade 11

	Averages in Grade 11				
	80+	70-79	60-69	59 and less	
Grade 13	15.1	41.0	38.3	5.5	48859.0 53.5
Job	1.9	25.0	56.1	16.9	22193.3 24.3
CAAT	2.6	26.5	56.7	14.2	9107.8 10.0
Other	3.3	26.6	50.1	19.9	11101.6 12.2
	8399.5 9.2	30972.0 33.9	41913.5 45.9	9976.7 10.9	91261.7 100.0

Table III.11: Activity in Fall 1973 and School Ability Compared to Classmates

	School ability compared to classmates			
	Above average	Average	Below average	
Grade 13	54.7	41.4	3.9	49459.5 53.2
Job	29.0	63.0	8.0	22778.8 24.5
CAAT	32.1	58.8	9.1	9358.6 10.1
Other	33.6	58.3	8.1	11291.4 12.2
	40450.4 43.5	46909.5 50.5	5528.4 6.0	92888.3 100.0

Table III.12: Activity in Fall 1973 and Opinion of Own Work

	Opinion of own work			
	Above average	Average	Below average	
Grade 13	60.9	32.4	6.7	49365.9 53.3
Job	40.3	53.9	5.8	22812.6 24.6
CAAT	41.5	51.2	7.3	9358.6 10.1
Other	38.8	50.7	10.5	11124.4 12.0
	47447.6 51.2	38720.0 41.8	6493.9 7.0	92661.5 100.0

Table III.13: Activity in Fall 1973 and Ability to Graduate from University

	Ability to graduate from university			
	Yes	Not sure	No	
Grade 13	81.9	14.9	3.2	49351.4 53.5
Job	34.5	35.2	30.4	22582.2 24.5
CAAT	49.9	29.4	25.7	9092.1 9.9
Other	42.1	32.9	25.0	11181.1 12.1
	56972.4 61.8	21665.5 23.5	13568.9 14.7	92206.8 100.0

Table III.14: Activity in Fall 1973 and Likeliness of Advanced Study

Likeliness of advanced study

	Likely	Not sure	Unlikely	
Grade 13	51.1	27.0	21.9	49307.7 53.5
Job	11.8	25.5	62.7	22693.9 24.6
CAAT	18.9	33.3	47.9	9046.3 9.8
Other	22.6	21.9	55.5	11160.6 12.1
	32088.9 34.8	24555.8 26.6	35563.8 38.6	92208.5 100.0

Table III.15: Activity in Fall 1973 and Prestige of Occupational Aspirations

	Prestige of occupational aspirations						
	Blishen one	Blishen two	Blishen three	Blishen four	Blishen five	Blishen six	
Grade 13	42.7	15.5	15.5	12.5	7.3	6.5	46997.7 53.3
Job	11.4	10.5	28.3	22.2	21.0	6.6	21379.7 24.3
CAAT	16.7	11.4	36.4	23.4	7.1	4.9	9127.8 10.4
Other	17.2	13.4	21.4	24.4	18.2	5.4	10592.3 12.0
	25841.3 29.3	11996.1 13.6	18935.4 21.5	15349.8 17.4	10495.3 11.9	5479.6 6.2	88097.5 100.0

Table III.16: Activity in Fall 1973 and Prestige of Occupational Expectations

	Prestige of occupational expectations						
	Blishen one	Blishen two	Blishen three	Blishen four	Blishen five	Blishen six	
Grade 13	36.7	12.4	14.0	15.0	9.8	12.1	43958.1 52.7
Job	2.7	5.2	26.2	23.5	23.7	18.8	20677.8 24.8
CAAT	8.2	7.5	37.1	31.9	6.9	8.4	8458.4 10.1
Other	11.6	10.9	19.5	24.4	14.4	19.2	10272.0 12.3
	18759.0 22.3	8271.1 9.9	16705.9 20.0	16632.5 20.0	11282.3 13.5	11895.5 14.3	83366.3 100.0

Table III.17: Rank Order in Importance of Objective Discriminants as they Relate to the Present Activities of Adolescents and their Intentions for the Fall of 1974.

Variable	Present Activities of Adolescents[a] F Value[1]	Rank order of importance
Grades	33343.4	1
Occupational prestige of father	15760.3	2
Sex	7098.1	3
Family size	3978.2	4
Strata	2156.7	5

Variable	Plans for the fall of 1974[b] F Value[1]	Rank order of importance
Grades	24392.7	1
Occupational prestige of father	13941.4	2
Sex	11681.3	3
Family size	1516.5	5
Strata	4486.9	4

[1] The size of the F value is directly proportional to the discriminatory power of the variable; only variables whose F values are significant at the 0.01 level are included in the rank ordering of variables.

[a] The subgroups employed in this analysis are: Grade 13, adolescents who are now employed in a full-time job, adolescents now enrolled in C.A.A.T.s (including nursing) and a subgroup that includes all adolescents who are currently engaged in other types of activities.

[b] The subgroups employed in this analysis are: adolescents who plan on obtaining or maintaining full-time employment, adolescents who intend enrolling in universities, adolescents who plan on enrolling or continuing in C.A.A.T.s (including nursing) and adolescents who plan on selecting some other alternative.

Table III.18: Rank Order in Importance of Objective and Subjective Discriminants as they Relate to the Present Activities of Adolescents and their Intentions for the Fall of 1974

Present Activities of Adolescents[a]

Variable	F Value[1]	Rank order of importance
Ability to graduate from university	62392.8	1
Occupational aspirations	16919.4	2
Parental encouragement[c]	12025.2	3
Grades	4160.0	4
Occupational prestige of father	2677.2	5
Sex	2303.7	6
Family size	1614.7	7
Strata	212.1	8
Present abilities index[d]	53.4	9

Plans for the fall of 1974[b]

Variable	F Value[1]	Rank order in importance
Ability to graduate from university	46021.4	1
Occupational aspirations	18560.9	2
Parental encouragement[c]	9006.6	3
Grades	3859.7	5
Occupational prestige of father	666.0	7
Sex	6672.1	4
Family size	526.7	8
Strata	1310.4	6
Present abilities index[d]	486.6	9

[1] The size of the F value is directly proportional to the discriminatory power of the variable; only variables whose F values are significant at the 0.01 level are included in the rank ordering of variables.

[a] The subgroups employed in this analysis are: Grade 13, adolescents who are not employed in a full-time job, adolescents now enrolled in C.A.A.T.s (including nursing) and a subgroup that includes all adolescents who are currently engaged in other types of activities.

[b] The subgroups employed in this analysis are: adolescents who plan on obtaining or maintaining full-time employment, adolescents who intend enrolling in universities, adolescents who plan on enrolling or continuing in C.A.A.T.s (including nursing) and adolescents who plan on selecting some other alternative.

[c] Encouragement by mother and father are combined to formulate an index of parental encouragement.

[d] Self-evaluation, in comparison with classmates is combined with evaluation of one's own work to formulate present abilities index.

CHAPTER FOUR

Summary and Conclusions

Summary:

Objectives of Follow-up Report:

A follow-up telephone survey of the same Grade 12 students that responded to our questionnaire in Spring 1973 was conducted in November 1973 to evaluate the predictive utility of an intentions survey. The objectives of the follow-up survey can be stated more specifically: (1) What are the present activities of these adolescents? (2) To what extent are these adolescents acting in accord with their intentions as stated in Spring 1973? (3) What factors distinguish adolescents who act in accord with their intentions or act contrary to their intentions? (4) To what extent do adolescents in November 1973 duplicate their responses to the question that asks: "Which one statement best describes what you plan to do in the Fall of 1974?" (5) What factors distinguish "consistents" and "inconsistents" in (4)?

Source of the Data:

Trained interviewers of the Survey Research Centre at York University placed telephone calls to all respondents to the Spring

survey in November 1973. Sixteen interviewers were trained to ask a total of five questions that pertained to present activities and future educational and vocational intentions. This process was co-ordinated by a field supervisor employed by the Survey Research Centre. Of the 2555 (previous) Grade 12 students, interviewers were able to reach and obtain responses from 2156 or 84.0% of the original sample.

Cross-tabulations in this report are based on a weighted sample of 93,192. This weighted sample approximates the target population in Fall 1973 and permits the analyst to adjust for errors or deviations from the sample to the population.

Changes in Educational and Vocational Plans:

Several tests for representivity were applied to the phase-two sample. We discovered that the phase-one sample and phase-two sample were essentially similar with respect to plans for Fall 1974 sex, family income and father's occupational prestige. Our contention that both samples were drawn from the identical target population (that is, Grade 12 students in Ontario) received considerable support, therefore we may generalize our findings (based on the phase-two sample) to the target population.

A number of facts emerge when individual and aggregate changes (changes that refer to a comparison of phase-two respondents' intentions

in Spring 1973 with their activities in November 1973) are analyzed: (1) Within six months, 22.3% of phase-two respondents participate in activities that are different from the plans they voiced in Spring 1973. (2) Adolescents who originally expressed an intention to enter Grade 13 are the most consistent subgroup in that 91.3% actually did enter Grade 13. This contrasts with 77.5% of adolescents who originally stated a preference for obtaining jobs and actually wound up in the job market. It is also true that only 70.8% of adolescents who originally expressed a desire to enrol in C.A.A.T.s (including nursing schools) actually enrolled in the Fall of 1973. (3) Adolescents who originally claimed they intended entering Grade 13 appear to be the most stable or consistent group while adolescents who originally expressed other types of plans are the least stable group. Adolescents who originally claimed a preference for entering the labour market and enrolling in C.A.A.T.s share an intermediate level in our rank ordering of consistency between plans and activities. (4) An intentions survey is a relatively poor means of predicting individual behaviours but a relatively good device in forecasting aggregate behaviours. Although nearly a quarter of all individuals in the phase-two survey altered their decisions there were minimal aggregate differences with respect to the proportions entering Grade 13 or C.A.A.T.s. For example, 54.2% originally claimed they would continue on to Grade 13.

(5) An analysis of the reasons offered by adolescents for a change in their decisions provides a relatively poor indicator of the motivations underlying change. Although 22.3% did alter their plans, only 8 percent offered reasons for their change.

A number of facts emerge when the individual and aggregate changes (changes that refer to a comparison of phase-two respondents' intentions for Fall 1974 as expressed Spring and November 1973) are analyzed: (1) Within six months 44.7% of phase-two respondents had altered their original intentions for the Fall of 1974. (2) Adolescents who originally stated a plan to enrol in university comprise the most consistent subgroup in that 79.6% expressed the identical plan in November 1973. Adolescents who originally stated they would either obtain a job or enter a C.A.A.T. in Fall 1974 prove to be less consistent in that 68.8% of the former and 64.7% of the latter subgroups reaffirmed this intention in November 1973.

Adolescents with alternative plans are least consistent in that 75.8% changed their minds between Spring and November 1973. (3) Adolescents who originally claimed they plan on entering universities appear to be the <u>most stable</u> or consistent group while adolescents who originally expressed alternative plans are the <u>most unstable</u> group. Adolescents who originally stated a preference for entering the job market or enrolling in C.A.A.T.s <u>share an intermediate level</u> in our

rank ordering of consistency between plans for Fall 1974 as stated in Spring and November 1973. (4) An intentions survey would appear to be a relatively poor means of forecasting individual intentions but a relatively good strategy in predicting aggregate intentions. Though it is true that well over forty percent of individuals change from their originally stated plans, the aggregate changes for university and C.A.A.T. intentions are minimal. For example, 32.3% originally stated a preference for enrolling in university in Fall 1973. In November, 34.3% of phase-two respondents again stated that they planned on university enrollment in the Fall of 1974. (5) An analysis of the reasons offered by adolescents for a change in decisions provides a relatively poor measure of motivations underlying change. Although 44.7% did change their plans, only 8% actually offered reasons for this modification in intentions.

Changes in Financial Support:

Adolescents were asked both in the Spring and November survey what sources of support they would employ to finance the total cost (i.e., tuition, living costs, and other expenses) of the first year of post-secondary education. Only adolescents who plan on enrolling in universities or C.A.A.T.s were asked this question.

For those respondents now in C.A.A.T.s, 48.4% rely on parents

for financial support; this dependence is greater than originally intended in that 44.7% originally claimed they would depend on their parents. Fewer (19.6%) actually sought government loans and grants than had intended to do so in the Spring of 1973 (22.2%). It is also true that fewer respondents now rely on personal savings (3.6%) to finance their first year than they expected last Spring (8.8%).

A Profile of Consistents and Inconsistents:

Consistents and inconsistents were discovered to vary substantially on factors associated with their demographic and social background and factors that relate to educational and vocational choices. Whether consistency is operationally defined in terms of the fit between intentions stated at two different time intervals or the continuity between intentions and behaviours, consistents and inconsistents, differ markedly on many of the factors mentioned above.

Adolescents who act in accord with originally stated intentions or fail to modify their plans over time are more likely than inconsistents to: (1) Come from urban areas of Ontario. (2) Be in smaller families where they are positioned at the low end of the ordinal structure (that is, more likely to be first born in the family). (3) Have more prestigious socio-economic origins.

quite clear, however, that C.A.A.T.S. do not completely account for the "slack". One possible explanation is that proportionately more students today are opting for part-time studies (+4.6%). But it should be emphasized that the percentage differences in Tables VII.3 and VII.4 only provide crude measures of attitude changes; a more complicated form of analysis is required to validate and explain these shifts.

Our analysis indicates that within a two year period the educational and vocational intentions of Grade 12 students have altered. A greater proportion of students today are avoiding getting full-time jobs, enrolling in universities or nursing schools but a greater proportion of students are attracted to C.A.A.T.S., part-time studies and taking time off to work or travel before enrolling in a post-secondary institution.

Table VII.1: Percentages, Confidence Intervals, and Confidence Limits for Educational/Vocational Plans of Adolescents in Fall 1973

Educational/Vocational Plans: 1973	Percentages and Confidence Intervals	Confidence Limits
Go to grade 13	49.5±0.093	(49.407-49.593)
Get a full-time job	17.9±0.951	(16.949-18.851)
Take a year off	6.7±0.360	(6.34-7.06)
Go to C.A.A.T.	11.2±1.482	(9.718-12.682)
Go to nursing school	1.3±0.502	(0.798-1.802)
Study part-time at C.A.A.T.	1.5±0.259	(1.241-1.759)
Go to trade school, etc.	3.8±0.893	(2.907-4.693)

Table VII.2: Percentages, Confidence Intervals, and Confidence Limits for Educational/Vocational Plans of Adoloscents in Fall 1974

Educational/Vocational Plans: 1974	Percentages and Confidence Intervals	Confidence Limits
Get a full-time job	8.4±0.702	(7.698-9.102)
Take a year off	8.3±0.329	(7.971-8.629)
Go to University	28.5±0.138	(28.362-28.638)
Go to C.A.A.T.S.	10.9±0.693	(10.207-11.593)
Go to nursing school	2.4±0.318	(2.082-2.718)
Study part-time work full-time	1.4±0.063	(1.337-1.463)
Study part-time work part-time	3.2±0.325	(2.875-3.525)
Complete grade 13	1.2±0.135	(1.065-1.335)
Continue working	12.4±1.204	(11.196-13.604)
Continue post-secondary education	7.5±1.053	(6.447-8.553)
Continue in nursing	0.7±0.350	(0.35-1.05)
Continue in trade school, etc.	0.8±0.008	(0.792-0.808)

TABLE VII.3: Comparison of Porter-Blishen Study and our Survey With Regard to Grade 12 Students' Plans for Next Fall.

Plans for next fall	Porter-Blishen Survey	Our Survey	Percentage Difference
	(1)	(2)	(3)
Go to Grade 13	52.1	48.7	-3.4
Get a full-time job	22.0	18.4	-3.6
Take a year off	0.0	6.8	+6.8
Go to C.A.A.T.	11.8	11.2	-0.6
Go to nursing school	2.7	1.2	-1.5
Study part time at C.A.A.T.	0.0	1.5	+1.5
Go to trade school	0.0	3.7	+3.7
Go directly to university	1.0	1.2	+ .2
Other	6.0	3.1	-2.9
Don't know	3.5	3.6	+0.1
Missing observation or multiple response	0.8	0.5	-0.3
Total	3024	2555	

TABLE VII.4: Comparison of Porter-Blishen Study and our Survey With Regard to Grade 12 Students' Plans After Graduation From High School.

Plans after graduation	Porter-Blishen Survey	Our Survey	Percentage Difference
	(1)	(2)	(3)
Get a full-time job	23.2	20.8	2.4
Take time off	0.0	8.3	+8.3
Go directly to university	34.0	28.5	5.5
Go directly to C.A.A.T.	15.6	18.4	+2.8
Go to nursing school	6.6	3.1	-3.5
Study part-time and work part-time or full-time	0.0	4.6	+4.6
Go to trade school	5.8	0.8	-5.0
Other	4.4	4.3	-0.1
Don't know	8.9	10.6	+1.7
Missing observation or Multiple response	1.5	0.6	0.9
Total	3024	2555	

CHAPTER EIGHT

Summary and Conclusions

Objectives and methods

A random and representative survey of 2951 Grade 12 students in Ontario was conducted by the Survey Research Centre, York University in the Spring of 1973; 97 high schools were included in the sampling frame and a total of 2555 issuable questionnaires (87 percent response rate) were collected by trained field interviewers from all schools. These questionnaires were then coded, edited and placed on IBM punch cards to permit data processing.

Two general questions guide the formulation and implementation of this survey. They are: (1) what are the educational and vocational plans of grade 12 students for the fall of 1974 and (2) given that adolescents select different educational and vocational alternatives, what similarities and/or differences in social origin, present experiences and preparedness characterize different groups of adolescents (e.g. those that intend enrolling in university, going to work, etc.). Grade 12 students are selected for study because they are at a critical decision-making juncture in their lives; these adolescents must soon decide whether to remain in high school, enter the labour market or enrol in some form of post-secondary education.

The two genetal questons specified above led to a formulation of nine specific project objectives. Stated in point form they are:

1. Assess the future educational and vocational plans of Grade 12 students in Ontario.
2. Identify the motivations (reasons) given for future educational plans. Are there differences (in reasons) among adolescents who plan to go to university, a College of Applied Arts and Technology, or work?
3. Identify not only the expectations of adolescents, but also their aspirations for the future.
4. Assess the influence of geographical location on adolescents' educational and vocational intentions.
5. Assess the influence of demographic factors (e.g. population size, sex) on adolescents' educational and vocational intentions.
6. Assess the financial means by which adolescents plan to cover their expenses while at a post-secondary institution.
7. Identify those factors (e.g., social background, influence of parents, teachers, peers), that aid (or hinder) adolescents in making educational and vocational decisions concerning their future.
8. Assess the perceived reliability and presence of information sources concerning post-secondary institutions for high school students.
9. Compare the results of our survey with those obtained in a comparable survey performed by James Porter and Bernard Blishen in 1971; this comparison may provide valuable insights into shifts in attitudes concerning educational and vocational intentions.

Summary of findings:

This section will present a distillation of the major findings in this report Table 8.1 offers the reader a breakdown of the educational/ vocational intentions of grade 12 students for the fall 1974. It should be noted that the categories in Table 8.1 incorporate, in some instances, the intentions of grade 12 students for the fall of 1973. Thus while 20.3% plan on working in the fall of 1974, 12.0% actually plan on working in the fall of 1973; only 8.3% intend to start working in the fall of 1974.

Table 8.1: Educational and Vocational Plans of Grade 12 students in Ontario for fall, 1974.

Plans for fall 1974	Percentage distribution
1. Full-time job	20.3
2. Take time off before enrolling in some form of post-secondary education	8.3
3. Go to university	28.9
4. Go to college of applied arts and technology	18.2
5. Go to nursing school	3.1
6. Go into apprenticeship or go to a private, commercial, business or trade school	0.8
7. Study part-time and work either full or part-time	4.6
8. Other	4.2
9. Don't know	10.7
10. Not classified	0.6
	100.0

The Role of Significant Others in Educational and Vocational Decision-Making

An adolescent's decision concerning his future career is influenced by exposure to a variety of different people. The type of contact and encouragement the adolescent receives may strongly influence his future plans and aspirations. Grade 12 students were asked to respond to this question: "To what extent have each of the following people encouraged or discouraged you to continue your education after high school?" We then asked: "Of the people mentioned above who have encouraged or discouraged you respecting your plans for future education, which of them has had the most impact on your decision concerning future education and has had the least." These types of people were included in the response categories: family, peers and school agents.

Of the three types of people included, Grade 12 students most often mentioned that their immediate family (mother and father) had the most impact on their decisions concerning future education. Peers and school agents (guidance department and teachers) have an almost equal impact on students. When peers and school agents are combined they account for less than 16 percent of total impact while immediate family (mother, father and siblings) accounts for over 70 percent of total impact.

Grade 12 students see their immediate family as more supportive in encouraging them to continue their education after high school than either school agents or peers. In fact almost four out of ten students claim that peers discourage them from seeking additional education;

the comparable figure for school agents is 2 in ten.

Parents are more likely to provide encouragement if their children intend to enroll in universities, C.A.A.T.S., nursing schools, take time off, or pursue part-time studies; they are more likely to discourage continued education after high school when their children plan on getting a job or are uncertain of their future plans.

Peers provide the strongest form of encouragement to those students that plan on enrolling in nursing schools; students who intend getting a job, enrolling in a C.A.A.T. or simply don't know their minds are most actively discouraged from continuing their education.

Although school agents are regarded as fairly encouraging by grade 12 students, those that plan on entering universities, nursing schools, part-time studies or take time off perceive greater encouragement on the part of school agents than students with other types of intentions. In fact over three in ten students who plan on obtaining jobs or entering trade schools claim that their teachers discourage them from continuing their education after high school.

Educational and vocational plans as they relate to self-evaluation, motivations and future aspirations.

Grade 12 students were asked questions that measure two aspects of self-evaluation, the first aspect refers to evaluation of self (with respect to peers) on present academic abilities or performance and the second aspect deals with the adolescent's evaluation of academic abilities with respect to some future educational goal (e.g. graduation from a

university). We found, with respect to both aspects of self-evaluation, that university-bound students have a more positive self-image than students with other plans. On the other hand, students who plan to either get a job or enter trade schools generally possess lower or less positive academic self appraisals than students with alternative educational and vocational plans.

Over two-thirds of all grade 12 students believe that their real abilities do not match their actual performance. In other words, they feel that they could do better if so desired. Another interesting and important finding with respect to self-evaluation is that while most students who plan on enrolling in universities think that they could graduate from either a university or a C.A.A.T., only slightly over 4 in ten students who intend to enroll in a C.A.A.T. believe they could graduate from a university.

Students were requested to indicate the personal importance of a number of reasons in continuing education after high school. Four reasons that rated very high in importance to most grade 12 students are: 'to get a satisfying job', 'to be better able to understand and appreciate ideas' and 'to get a job with a high income.' 'To delay making a job or career choice' and 'to get married' are considered not at all important reasons for continuing education by most grade 12 students.

Grade 12 students were also asked what they would like to do upon graduation from high school. A high degree of congruency (between

aspirations and expectations) exists for these students that intend to go to university, nursing schools, trade schools, or, to take time off before enrolling in some form of post-secondary education. Congruency between aspirations and expectations is significantly lower for those students who plan to get a job, enroll in a C.A.A.T., or study part-time. This analysis raises an intriguing question: what differentiates adolescents whose aspirations and future plans are similar from adolescents whose aspirations and future plans are dissimilar?

An examination of the occupational aspirations of students revealed that students planning on attending university have the highest occupational aspirations (e.g. professions). Students that plan to get a job, enter nursing schools or study part-time possess occupational aspirations that are relatively lower than those of students with alternative educational and vocational plans.

The Relationship of Academic Performance and Attitudes to Future Educational and Vocational Plans

Academic achievement clearly relates to the educational and vocational plans of grade 12 students. Whether grade point averages in grade 11 or expected grades in grade 12 are employed, the trend is quite similar. Students who intend to go to university obtain the highest average grades relative to any other group. Thus, while over 6 in ten students who plan on university achieve average of B and better only slightly more than 3 in ten students who intend enrolling in C.A.A.T.S. fare as well. Students

who plan on getting jobs or entering trade schools achieve lower academic averages than students with other educational and vocational plans.

Most grade 12 students look favorably at their high school experiences. Over 8 in 10 students express the feeling that their high school experiences prove helpful in preparing for the future. Students who plan on going to university are most likely to consider high school as helpful in preparing for the future, and students who plan on taking time off or are unsure of their future plans are least likely.

Why high school students do not go to universities or colleges of applied arts and technology.

Three groups were examined in order to identify their reasons for not continuing education after high school graduation. The three groups consist of students: who plan on entering the labour market, take time off for a year or two before enrolling in post-secondary education and the "don't knows."

Three factors that are most frequently stressed as important reasons for not going to either a C.A.A.T. or university are: wanting to get a job as soon as possible, students often finding schoolwork boring and uninteresting and students intending to take further training but not at C.A.A.T. or university. Parental discouragement, wanting to marry as soon as possible, and the fact that 'it is expensive and not worth the expense' are reasons that students consider not at all important in deciding against a university or C.A.A.T.

Students planning on getting a job are most likely to consider 'wanting to get a job as soon as possible' as very important while those that intend taking time off are least likely to see this as a very important reason for not going to a university or C.A.A.T. The latter group is also less likely to view schoolwork as boring than those who plan on getting a job or those who are unsure of their future plans. Students who plan to enter the job market are more likely to emphasize the importance of 'training elsewhere' as an important reason for not going to a university or C.A.A.T. than either those planning to take time off or the "don't knows."

Although some form of post-secondary education is not an immediate goal for students who intend getting jobs, taking time off or simply don't know, 4 in ten of these grade 12 do plan on continuing their education within the next five years..

Grade 12 students who intend going to universities or colleges of applied arts and technology

While a majority of students who plan on enrolling in a C.A.A.T. will do so because they prefer the kind of programme available, students who intend going to university primarily do so because they believe a university education is required for the type of job they desire.

Students planning on going to either a C.A.A.T. or university were asked to consider a variety of different information sources concerning universities and C.A.A.T.S. and then evaluate these sources in terms of accuracy or inaccuracy. Four information sources that are more often

perceived as accurate are the high school guidance department, university and C.A.A.T. calenders, friends at universities and C.A.A.T.S., and high school teachers. Four information sources that are more frequently perceived as inaccurate are: faculty at university and/or C.A.A.T.S., relatives other than parents, university and C.A.A.T. representatives to high schools, and sisters and/or brothers of grade 12 students.

Few distinctions exist between university and C.A.A.T. - bound students in terms of the aforementioned information sources except for 'friends at university or C.A.A.T.', 'high school teachers' and 'sisters and/or brothers'. A greater proportion of students who intend going to university accept the authority of friends, high school teachers and sisters and/or brothers than do students who plan on enrolling in C.A.A.T.S.

While 4 in ten students decide on university or C.A.A.T. by the time they reach grades 11 or 12, fully 5 in ten students who plan on going to a university arrive at their decision to go by grade 8 and less than 2 in 10 students who intend going to a C.A.A.T. decide by grade 8. Therefore students who plan on a university education make up their minds at a much earlier age than do students who decide on going to a C.A.A.T.

Over 8 in ten students plan to do their studies in Ontario but less than a third will maintain home residence while enrolled at a university or C.A.A.T. However, more than 4 in 10 students of the latter group will live at home while less than 3 in 10 students who plan on university intend on living at home.

Although university-bound students decide on this form of education at an earlier date than C.A.A.T. goers, a greater proportion of the latter group (over 7 in 10 students) have a definite idea of their major area of study in university than do university-bound students (6 in 10 students).

When it comes to financial support for the first year of study at a university or C.A.A.T., over 4 in ten students state that they will rely on parents or inheritances; over 3 in 10 intend to support themselves through savings from summer work or personal savings. Students who plan on entering university appear more heavily reliant on parents while students who intend to go to a C.A.A.T. will depend more heavily (than university goers) on personal savings and income from summer work. However both groups of students are equally certain that they will be able to finance their first year (over 8 in 10 students are certain of this).

Changes in Educational and Vocational Intentions

Results obtained in a survey of high school students in 1971 (conducted by James Porter and Bernard Blishen) were compared with results in the present survey. Two major comparisons were made: (1) a comparison of the educational and vocational intentions of Grade 12 students for the very next fall (2) a comparison of the educational and vocational intentions of Grade 12 students one year later. As was emphasized in Chapter seven, these comparisons must be interpreted cautiously because the two studies employed different response categories.

The data indicate that there have been attitudinal shifts in educational and vocational intentions from 1971 to 1973. Fewer grade 12 students today are planning on completing grade 13 than in 1971 and fewer students are planning on getting a full-time job than in 1971. A greater proportion of today's students plan on being 'stop-outs' and proportionately more students today are attracted to part-time studies and trade schools than in 1971.

When we turn to plans after high school graduation, it appears the trend away from obtaining full-time jobs is maintained. The attractiveness of nursing schools has also decreased from 1971 in that nearly 4 percent fewer women are now choosing this vocational alternative.

While the trend to take time off or 'stop-out' is maintained, grade 12 students today seem less inclined to choose university as an option than they did in 1971. Although a greater proportion of students today are choosing C.A.A.T.S., this explains only half of the decline (in intentions) in university enrolments. It was suggested that the "slack" may be explained by an increased interest on the part of grade 12 students in part-time studies.

In summary, our analysis roughly indicates that within a two year period the educational and vocational intentions of Grade 12 students have altered. A greater proportion of students today are avoiding full-time jobs, universities and nursing schools and a greater proportion are presently attracted to C.A.A.T.S., part-time studies, and taking time off to work or travel before enrolling in some form of post-secondary education.

A profile of grade 12 students

As a concluding note to this report of grade 12 students in Ontario, we would like to offer a "profile" or typology of students. A profile or typology is a crude method of rapidly identifying the similarities and differences among elements in a heterogeneous population. In developing this profile we selected six variables; these variables are individually discussed in the preceeding chapters. They are: (1) Sex of respondent; (2) the occupational prestige level of father's present job (Blishen); (3) Stratum in which respondent resides; Strata are roughly equivalent to the degree of urbanization of an area where stratum one is urban and stratum four is rural; (4) Perceived ability of student to graduate from a university; (5) grades obtained by students in grade 11; (6) the prestige (Blishen) of students' occupational aspirations (i.e. the social prestige of the job that an adolescent desires to obtain in the future).

Our profile or typology is presented in Table 8.2. The labels in each table cell refer to a comparison of the percentage of students of a particular group (e.g. get a job) with the marginal frequency for a particular variable (e.g. sex).

Table 8.2 would seem to indicate that those students who plan on going to university differs markedly from all other groups of students. They tend to be male, rank high on social class background, come from urban areas, believe they have the ability to graduate from university (and have the grades to back up this claim) and possess higher occupational aspirations than students with other kinds of plans. Students who

intend to go to a C.A.A.T. contrast sharply on all the aforementioned characteristics. They tend more to be female, come from less prestigious backgrounds, possess fewer illusions concerning either their ability to graduate from university or obtain very prestigious jobs. Their grade point averages also tend to be lower than those of university-bound students.

Students planning on taking time off before enrolling in some form of post-secondary education appear to most closely resemble university-bound students. They differ most sharply with respect to academic performance in that their grade average in grade 11 is much lower than the grade averages of university-oriented students. It is also true that their conviction concerning graduation from university is not merely as strong and their occupational aspirations are not quite as high.

Students planning on entering trade schools, etc. appear to contrast quite sharply on a number of variables from all other groups. They are predominantly male; over half come from rural areas, none believe that they have the ability to definitely graduate from university; their grade point averages are low (only students who plan on getting jobs have slightly lower averages) and their job aspirations are extremely low.

Our examination of the profiles of grade 12 students lends support to our premise as stated in the introduction to this report. The educational and vocational plans of adolescents are not based upon arbitrary decisions. They depend, to a large extent, on the adolescents' social origin, his present experience (e.g. grade point average, strata) and

his preparedness with respect to the future. Information concerning the context or more specifically, the contexts, in which adolescents consciously or unconsciously make choices, that shape their future is constantly required to meet the demands of a changing society.

Table VIII.2: Profile of Grade 12 Students in Ontario

Variables	Get a Job	Go to University	Go to C.A.A.T.	Take Time off	Go to Nursing School	Study Part-Time	Go to Trade Schools, etc.	Don't Know
Sex	Female	Male	Female	Male	Female*	Male	Male*	No Difference[1]
Prestige of father's occupation	Low*	High*	Low	High*	Low	Low*	Low	No Difference[1]
Strata	Rural	Urban*	No Difference[1]	Slightly Urban[2]	Rural	Urban	Rural*	Urban and Rural
Ability to graduate from a university	Low	High*	Low	High	Low	Low	Low*	Low
Grade average in grade 11	Low*	High*	Low	Slightly Low[2]	Low	Low	Low*	Low
Prestige of occupational aspiration	Low	High*	Low	High	Low*	Low	Low*	Low

* This indicates that this group differs markedly form the marginal frequency for this variable. For example, 48.9% of grade 12 students are male but 95.7% of students who plan on going to trade schools are male or a difference 46.8%

1 This indicates that the group differs little or not at all from the marginal frequency for this variable. For example, 20.2% of fathers occupy Blishen one and two (upper middle class) while 20.1% of those student's in the don't know group have fathers in Blishen one and two; this is a difference of o.1%.

2 This indicates that the group only slightly differs from the marginal frequency for this variable. For example, 41.2% of all students achieved grade averages of B or more in grade 11; 39.1% of students who plan on taking time off achieved B or more in grade 11 or a slight difference of 2.1%.

YORK UNIVERSITY

INSTITUTE FOR BEHAVIOURAL RESEARCH

SURVEY RESEARCH CENTRE

Appendix I

Survey of Ontario Grade 12 Students

Sample Design Project 141

Oleh Iwanyshyn
July, 1973

SAMPLE DESIGN

Population -

The purpose of this survey was to obtain a representative sample of 1972-73 Grade 12 students in Ontario and monitor their academic attitudes and aspirations by means of a self administered, confidential questionnaire. The questionnaire consisted of mostly closed-end items and took on the average a half hour to complete. The self administration was conducted in groups of selected students at the selected schools. The complete process was supervised by a field interviewer employed and trained by the Survey Research Centre, York University.

The first important distinction that must be made about surveys is that the surveyed population should ideally be identical to the target population, in this case, the 1972-73 Grade 12 students in Ontario. In practice, seldom do the two populations overlap completely. The reason for this was that the target population element, the Grade 12 student, was not defined in a clear, unambiguous, uniform way. This uncertainty was of course transmitted to the selection of the sample.

A definition shared by many schools stated that eligible Grade 12 students were those taking enough course credits in 1972-73 academic year to have the possibility of matriculating at year's end. It was felt that this definition was too narrow in that it may not have included into the survey population those students who were not taking enough course credits to matriculate and yet for all intents and purposes were Grade 12 students i.e. most of the course load consisted of Grade 12 level subjects. This

type of error deflates the survey population in relation to the target population. Conversely the survey population may have included students who were effectively Grade 13 students and yet were carrying a few Grade 12 subjects necessary for their Grade 12 matriculation (some of the students in the latter group may have been included in the sample in the ineligible component of non-response). This type of error inflates the survey population. Both types of error introduce bias into the sample.

Clearly the problem of definition is a serious one and is the direct result of the relaxation and broadening of the curriculum structure in the high schools. Formerly the natural time unit of study was an academic year. Hence it could be distinguished fairly simply whether a student was in Grade 12 and taking Grade 13 subjects, or in Grade 13 and taking Grade 12 subjects. Presently the importance of the year as the natural unit is being de-emphasized, and added emphasis is placed on each student's unique rate of scholastic development. In effect the natural unit is now being officially recognized as the student. This change in policy offers the student greater flexibility in choosing a course of study by providing (a) a much wider spectrum of subjects and (b) a credit system whereby each student may plan a course of study that is suited specifically to his/her needs and potential at the time.

One important quantitative result obtained from the survey relates to the total number of students in the survey population. It was assumed that between 1971-72 and 1972-73 school years the total Grade 12 population in Ontario would grow by 3.2%. In fact the population total of the sampled schools (97 in total) was 13% below the total of the same schools in 1971-72 on the basis of the Secondary and Private School Enrolment Reports published yearly

by the Ministry of Education, and 5% below the preliminary enrolment data based on the 1972-73 Principals' Reports. In terms of the projected 1972-73 enrolment the totals were respectively 16.2% and 8.2% smaller. Since the sample of selected schools represented a predominance of large schools over small schools a better estimate of 1972-73 total enrolment was obtained by calculating the estimate based on the units of selection (approximately equal groups of students) of the sample. The estimated population total within one standard deviation, was 96,582 ± 2566 students, a decrease of 11% ± 2.3% below the 1971-72 value.

There are two decrements to account for. First there was the general decrease of the total 1972-73 Grade 12 population (three different estimates ranging from 13% to 5%) and secondly, the estimates of the population total from the enrolment lists of the selected schools were approximately 8% and 6% smaller than the figure obtained from the 1972-73 Principals' Reports.

Assuming that the criteria for defining a Grade 12 student remained unchanged between 1971-72 and 1972-73 then possibly the main reason for the latter differences was the different times of the academic year when the population was monitored. The monitoring in the Principals' Reports occurred primarily at the beginning of the school year, whereas the sample estimates were monitored near the end of the school year. A graphical illustration of the population monitors is included in Fig. 1. It is conjectured that the differences were attributed to students who had dropped out for various reasons. Their presence was assumed in the target population. Hence their absence in the sampled population may signal the existence of a serious bias in the sampled population. It is noted that the sample obtained a 3% non-response associated with drop outs; no attempt was made to recover its component.

FOLLOW-UP SURVEY

A follow-up study of the respondents in the original survey was carried out in November/73. The purpose of the follow-up was to monitor the consistencies and inconsistencies in the attitudes and aspirations of the original group of Grade 12 respondents. To distinguish between the original and follow-up surveys, the former will be referred to as the Phase I survey, and the latter as the Phase II survey. The method of data collection was by telephone. The telephone survey was selected over alternate methods for several reasons. For the type of information requested and population sampled the telephone method was the quickest and most economical in terms of the high response rate that was required in Phase II.

The telephone survey was conducted both from the Ministry of Colleges and Universities and from the interviewers' homes - all long distance calls from the Ministry and local calls from interviewers' homes.

Fourteen interviewers and one supervisor were require over a two week period.

The calls were made week-day evenings, excluding Fridays, from 6 p.m. to 9:30p.m. and Sunday afternoons from 12 noon to 5 p.m.

Up to four attempts were made to contact each of the 2555 students. After one phone call to each student, 1124 questionnaires were completed. The second call obtained 579 additional completions; the third 270 and the fourth 183 for a total of 2156 completed questionnaires.

From the original group of 2555 Phase I respondents, a total of 2156 responded to Phase II, a response rate of 84.3%. From the total group of non-respondents 253 students had no telephone numbers where they could be

reached.

The remainder of the non-response, 146 students in total for one reason or another could not or would not be interviewed. A more detailed numerical breakdown of the respondents and non-respondents is included in the Final Field Report - Phase II (Sub-appendix D)*.

* The Final Field Report - Phase II was compiled by Ms. Joan Roberts, Sampling Supervisor of the Survey Research Centre.

ESTIMATION PROCEDURE

Each sample of primary sampling units was randomly selected from the frame population with an equal probability of 1/62. Hence each unit had associated with it a weight of 62 i.e., each student within a unit represented 62 students in the frame population. In fact, however, the frame sample seldom conforms exactly to the sample from the actual survey population. For example: Some PSUs selected in the frame population may not be available in the survey population. Other PSUs may consist of appreciably more or less than 32 eligible students, the approximate size of a PSU in the frame population. Also in many selected PSUs some eligible students may not be present on the day of the administration of the questionnaire. These students are termed non-respondents and the aim of every survey is to reduce the number of such students to a minimum.

In order to account for certain types of deviations from the frame population it is necessary to adjust the weight of each PSU. The underlying assumption of this procedure was that certain non-respondents within a PSU were essentially similar to the respondents within either the PSU, the stratum, or the sample as a whole. The sampler, in deciding to adopt a weighting scheme, must pay scrupulous attention to the possibility that in adjusting estimates to account for the non-participating elements in a survey he/she is leaving the door open for bias to creep in. This problem can become acute if there is a large non-response and if the educational aspirations of the non-respondents are profoundly different from the respondents.

The decision about which components of non-response were to be weighted was influenced by the differentiation made in the Porter-Blishen sample design. In the latter design weightable non-respondents consisted of those students that were:

1) absent from school on the day of administration
2) in attendance at school but refused to participate in the study i.e., did not complete the questionnaire
3) in attendance at school but the principal or parents refused to permit their completion of the questionnaire.

On the other hand the non-weightable non-respondents were the students that had:

4) changed to another school or grade
5) dropped out of class
6) been included erroneously

Clearly components 4), 5), and 6) relate to frame listing problems. Component 5) is particularly important for two reasons. Firstly, in the present survey it was quite probable that this group was substantially underreported and secondly, its aspirations and attitudes may have been quite different from the majority group. In addition, weighting refusals should be viewed with reservation since evidently this subsample of students represented those in the population that did not wish the survey to speak for them. Perhaps it should be incumbent on surveys to respect their wishes. In any case since one goal of the present survey was to compare it with the Porter-Blishen study it was thought advisable to preserve the non-respondent - respondent distinctions created in the latter.

In the following section the procedure for determining corrections to the frame weight is outlined. In general the weight was determined by the equation:

$$W.n = N$$

Where n = size of sample

N = size of population

W = weight

Since two independent samples were selected the subscripts 1 and 2 were used to identify the relevant symbols as belonging to sample #1 or sample #2. The sum of the two independent samples obtained from the frame population (108,586 students) was 3488 students. However, due to a sizeable decrease of the survey population the sum of the two samples amounted to only 3059 students. The estimate of the survey population based on the school population lists was 96,582 $\pm$ 2566 students, where 2566 is equal to one standard deviation from the population total. The value was 11.0$\pm$ 2.3% below the frame population. In other words there is approximately a 70% chance that the actual survey population lay between 94,016 and 99,148 students. Hence it was decided that the sample weights should be adjusted such that the normalizing coefficient (N) was 96,582 rather than 108,586. Note that the decrease in the total population was approximately proportional to the decrease in the sample size.

R: Correction Factor for Sampling Variability

This correction factor accounted for changes in PSU size due to the natural variability (including round-off errors) of school population lists from the values projected in the frame population. Two schools in which PSUs were

selected refused to participate in the survey, one in each of sample #1 and sample #2. In order to calculate the correction factor an average value of the PSUs was substituted for the non-participating schools in each sample. Hence the size of samples#1 and #2 were incremented by 29 students respectively (to 1510 and 1607 students respectively). The resulting correcting factors for samples #1 and #2 were

$$R_1 = 1.03 \quad ; \quad R_2 = .97$$

S: Correction Factor for Non-Participating Schools

It was decided to "balance" the effect of the two schools that did not participate by correcting the weight uniformly throughout each of the samples containing the missing PSU. The resulting correction factors for samples #1 and #2 were

$$S_1 = 1.02 \quad ; \quad S_2 = 1.02$$

T: Correction Factors for Non-Response

Two possible methods correcting for non-response were considered. The first involved the duplication or elimination of respondent questionnaires in order to obtain a uniform response rate among the PSUs. The merit of this method was that only one weight factor would be required for sample estimation. The demerits were that a) large duplication rates resulted in a significant increase of the variance and b) occasionally respondent files had to be eliminated, an uncomfortable prospect for many samplers.

The second option involved the weighting of each PSU separately. The process of estimation was somewhat more involved but could easily be handled by computer data processing techniques. The non-response correction factor was defined by the expression

$$T_{ij} = \frac{n'_{ij}}{n_{ij}} \qquad \begin{matrix} j = 1,2 \\ i = 1,2,\ldots a_j \end{matrix}$$

where a_j = total number of PSUs in sample j

where n_{ij} = the number of respondents in the i^{th} PSU and the j^{th} sample

and n'_{ij} = the number of selected students in the i^{th} PSU and the j^{th} sample less those students who were non-weightable non-respondents in PSU i and sample j.

The derivation of T_{ij} is detailed in Sub-appendix B

It follows that the corrected weights for the i^{th} PSU in samples #1 and #2 respectively were

$$W_{i1} = 62.R_1.S_1.T_{i1} \quad \text{and} \quad W_{i2} = 62.R_2.S_2T_{i2}$$

The correction factors and the corrected weights by sample and by school are included in Sub-appendix C.

U: Correction Factors for Non-Response in Follow-Up

Similar to the Phase I survey a group of Phase I respondents failed to respond to Phase II. The non-response in Phase II was treated in the same way as the Phase I non-response. Each of the PSU weights with Phase I corrections was again adjusted for the additional non-response in Phase II. The sum, over all the PSUs, of the product of the Phase II corrected weights and the number of Phase II respondents in each PSU of the sample were approximately equal to the corresponding Phase I sum-total.

The non-response correction in Phase II was defined by the expression

$$U_{ij} = \frac{m_{ij}}{m_{ij}}$$

where $j = 1, 2$

$i = 1, 2, \ldots, a_j$

m_{ij} = the number of Phase II respondent students in the i^{th} PSU and the j^{th} sample

a_j = total number of PSU's in sample j

The Phase II corrected weights for the i^{th} PSU in sample 1 & 2 respectively, were

$$W_{i_1}(II) = 62 \cdot R_1 \cdot S_1 \cdot T_{i_1} \cdot U_{i_1} \quad \text{and}$$

$$W_{i_2}(II) = 62 \cdot R_2 \cdot S_2 \cdot T_{i_2} \cdot U_{i_2}$$

In the following sections it will be understood that $W_{i_{1,2}}$(II) is to be used when computing the Phase II estimates. The Phase II corrected weights, by sample and by school, are included in Sub-appendix C.

Finally, a word of caution. Although the Phase II response rate was quite high -- 84% -- the total number of Phase II respondents represents only 73 per cent of the original number of Phase I selections. This fact implies that Phase II measurements are deficient relative to Phase I measurements in terms of their precision. Furthermore, the bias of non-response is potentially more harmful when Phase II results are used to generate a description of the changes effected in the original Grade 12 population than would the corresponding Phase I results.

Use of the weights in calculating sample estimates is illustrated in the following examples. The estimated aggregate of a variable y was obtained in the following manner. First, we compute the aggregate estimate y_1 and y_2 in each sample, 1 & 2. This calculation obtained

$$y_1 = \sum_{h=1}^{H} y_{h_1} \quad \text{and} \quad y_2 = \sum_{h=1}^{H} y_{h_2}$$

where $y_{h_1} = \sum_{i=1}^{a_{h_1}} W_{hi_1} y_{hi_1}$ and $y_{h_2} = \sum_{i=1}^{a_{h_2}} W_{hi_2} y_{hi_2}$

and H = total number of strata

$a_{h_{1,2}}$ = total number of PSUs in stratum h and sample 1 or 2.

$y_{hi_{1,2}}$ = the aggregate of y in the ith PSU of stratum h in sample 1 or 2.

Note that when y is a "count" variable (i.e., a sample element can have the value 0 or 1), the above expressions are recast with the symbol n. When n

pertains to the respondent (1) and non-respondent (0) students in the sample, $n_{1,2}$ refers to the total number of students in the population as estimated by sample 1 and 2 respectively, and $n_{h_{1,2}}$ refers to the total number of students in stratum h as estimated by sample 1 and 2 respectively.

Secondly, we calculated the weighted, composite total estimate y, of the population total Y.

$$\hat{Y} = y = K_1 y_1 + K_2 y_2$$

where $$K_1 = \frac{n_1}{n_1 + n_2}$$

and $$K_2 = \frac{n_2}{n_1 + n_2}$$

In order to obtain the weighted, composite, mean estimate of the population mean $\bar{Y}$, we computed

$$\hat{Y} = \bar{y} = \frac{y}{n_o}$$

where $$n_o = K_1 n_1 + K_2 n_2$$

= the composite count estimate of the population

Note that if $y = x$ in the above expression where x is a "count" variable of the same type as n but refers to a different characteristic of the

population, then $\bar{y} = p$, where p is an estimate of the population proportion $\hat{P}$ of that characteristic. Hence

$$\hat{P} = p = \frac{x}{n_o}$$

where $x = K_1x_1 + K_2x_2$

Since the number of respondents fluctuates in a haphazard fashion from PSU to PSU, the mean and proportion estimates should be termed more correctly as ratio estimates.

SAMPLING ERROR

In addition to obtaining a sample estimate of a population characteristic, it is important to know how closely the estimate lies to the actual value of the characteristic in the sample population. In other words, can an interval be defined around the sample point estimate, such that under repeated sampling from the same population it can be expected that most of the estimates for the same characteristic, e.g., 95 per cent of them, from the sample replicates fall within the predefined interval? In probability sampling, this interval is termed the confidence (or expectation) interval, and its range can be determined by computing the variance of the point estimate. The square root of the variance defines the sampling error which, in turn, is used to define the confidence interval.

The determination of confidence intervals assumes that the distribution of an estimator, from which the sample estimate is but one point, is known. For straightforward sample designs such as a simple random sample, the variance estimates for different estimators are relatively easy to derive, and sample estimates are known to attain a normal-type distribution, upon increase of sample size. For sample designs in general, the shape of the distribution depends on the method of selection, the specific design of the sample, and the type of statistics being estimated. For stratified, clustered designs with several stages of selection, (most commonly found in contemporary survey research), the expressions for the variance can be formidable. For many estimators the result is that there is no theoretical assurance of the normality

of the distribution of their estimates. Hence, the problem of assigning confidence intervals to these estimates must be investigated empirically. Research into the area of variance estimation for complex designs and the practical problem of the diversity and sheer number of statistics that need to be computed in the organization and analysis of survey data have resulted in alternate, empirical procedures based on the idea of replicated sampling. A procedure for estimation has been incorporated into the design of the present study. A brief description follows below.

Two equal samples of PSUs are selected independently in each stratum. If a constraint requires that an unequal number be selected, the odd PSU can be randomly divided into approximately equal halves, or the unequally numbered stratum can be collapsed with another appropriate unequal-number stratum. Within each stratum an estimate of the sum-total of a characteristic is computed in each of the independent samples. Following this, the square of their differences is computed. The resulting value provides a rough estimate of the variance in that stratum. The estimates are aggregated over all the strata, and the resulting sum provides an estimate of the variance of the total sample for the particular characteristic. It should be emphasized that in the computations the sample elements have been assigned their respective weights corrected for non-response. Since in this procedure each stratum contributes one independent component of the total variation, the variance estimate has associated with it a number of degrees of freedom equal to the number of strata in the sample. If the total number of strata in the sample is greater than or of the order of ten, then the distribution of the sample estimates based on repeated sampling from the same population attains an approximately normal shape.

Hence a 95% confidence interval of a sum-total estimate y is constructed from the expression $y \pm 1.96\sqrt{\text{var}(y)}$, where var (y) is the estimated variance of y. If the number of strata is less than ten, the estimator distribution is better approximated by a Student's - t distribution. In the latter case, the determination of the confidence interval must take into account the effect of a restricted number of degrees of freedom on the distribution. The expression for the 95% confidence interval for a sum-total estimate y would then be modified in the following manner:

$$y \pm t_{.025} \sqrt{\text{var}(y)}$$

where $t_{.025}$ is a function of the degrees of freedom.

The values of $t_{.025}$ for different degrees of freedom are tabulated in most elementary statistics texts. The essence of this functional relationship is that $t_{.025}$ tends to increase more rapidly with a decrease in the number of degrees of freedom and can result in a large underestimate of the error bounds if $t_{.025} = 1.96$ is used as a substitute.

For estimating the variance of a mean, proportion, or ratio of a population characteristic, a similar algorithm is followed, although the variance estimating formulae are somewhat more complex. A mathematical description of the procedure that has been discussed is presented below.

The variance estimate of a sum-total or count of a characteristic is determined by the following expression:

$$\text{var}(y) = \sum_{h} \left[K_1 y_{h_1} - K_2 y_{h_2} \right]^2$$

The sampling error is defined as $\sqrt{\text{var}(y)}$.

For estimating the variance of a mean or proportion estimate (i.e., a ratio estimate), the following approximate expression is used:

$$\text{var}(r) \simeq \frac{1}{n_o^2}\left[\text{var}(y) + r^2\ \text{var}(n_o) - 2r\ \text{cov}(y, n_o)\right]$$

$$= r^2\left[\sum_h \left(\frac{K_1 y_{h_1} - K_2 y_{h_2}}{y} - \frac{K_1 n_{h_1} - K_2 n_{h_2}}{n_o}\right)^2\right]$$

$$= r^2 \cdot \left[\text{c of v}(r)\right]^2 \quad \text{where} \quad r = \bar{y} \text{ or } p$$

$$\text{var}(n_o) = \sum_h \left[K_1 n_{h_1} - K_2 n_{h_2}\right]^2$$

= the variance of the count of the PSU's

cov (y, n_o) = the covariance of the sum-total y and count n_o

$$\text{c of v}(r) = \frac{\sqrt{\text{var}(r)}}{r} = \left[\sum_h \left(\frac{K_1 y_{h_1} - K_2 y_{h_2}}{y} - \frac{K_1 n_{h_1} - K_2 n_{h_2}}{n_o}\right)^2\right]^{1/2}$$

= coefficient of variation of r

The variance estimate for a ratio is generally valid provided that the coefficient of variation of n_o is small:

$$\left(\frac{\sqrt{\text{var}(n_o)}}{n_o} < 0.2\right)$$

This condition restricts fluctuations in the size of the PSU's to moderate levels. In the analysis of subclasses of the populations that cut across PSU boundaries this condition can become a very important restriction for variance estimation.

SUB-APPENDIX A

PROJECT #141 - FINAL REPORT

STRATUM # 1

SCHOOL NAME	SCHOOL NUMBER	SELECTED STUDENTS	LEFT SCHOOL	INELIGIBLE	BASE	# COMP	% COMP	# TEMP ABSENT	% T.A.	# REFUSAL	% REFUSAL	# OTHER	% OTHER
ETOBICOKE C.I.	2101	25	0	0	25	21	82	4	16	0	0	0	0
NORTH ALBION C.I.	2102	42	0	0	42	40	96	2	4	0	0	0	0
RICHVIEW C.I.	1103	29	0	0	29	21	77	6	20	0	0	2	3
SCHOOL OF EXPERIENTIAL EDUCATION	1104	26	0	0	26	13	50	0	0	0	0	13	50
SILVERTHORN C.I.	1105	31	0	0	31	31	100	0	0	0	0	0	0
THISTLETOWN C.I.	1106	21	1	0	20	16	80	4	20	0	0	0	0
WEST HUMBER C.I.	2107	34	4	1	29	27	93	2	7	0	0	0	0
BLOOR C.I.	2108	30	0	1	29	27	93	2	7	0	0	0	0
CENTRAL H.S. OF C.	2109	21	1	0	20	19	95	1	5	0	0	0	0
HUMBERSIDE C.I.	1110	31	2	0	29	28	96	0	0	0	0	1	4
MALVERN C.I.	1111	31	2	0	29	25	84	0	0	3	12	1	4

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STRATUM # 1

SCHOOL NAME	SCHOOL NUMBER	SELECTED STUDENTS	LEFT SCHOOL	INELIGIBLE	BASE	# COMP	% COMP	# TEMP ABSENT	% T.A.	# REFUSAL	% REFUSAL	# OTHER	% OTHER
OAKWOOD C.I.	1112	37	0	0	37	32	86	0	0	0	0	5	16
A.Y. JACKSON S.S.	2115	32	0	1	31	26	84	5	16	0	0	0	0
BATHURST HEIGHTS S.S.	2116	36	4	0	32	15	47	1	3	0	0	16	50
C. W. JEFFERYS S.S.	1117	36	0	0	36	36	100	0	0	0	0	0	0
EMERY C.I.	2118	35	2	0	33	28	85	5	15	0	0	0	0
NORTHVIEW HEIGHTS S.S.	1119	23	0	0	23	20	87	3	13	0	0	0	0
VICTORIA PARK S S.	2120	54	1	0	53	18	34	10	19	0	0	25	47
CEDARBRAE C.I.	2121	27	0	0	27	24	88	1	4	1	4	1	4
DAVID AND MARY THOMPSON C.I.	1122	31	0	0	31	26	84	3	10	0	0	2	6
WINSTON CHURCHILL C.I.	2123	24	0	0	24	20	83	1	4	0	0	3	13
ST. GEORGE'S COLLEGE	1124	24	0	0	24	22	92	1	4	0	0	1	4

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STRATUM # 1

SCHOOL NAME	SCHOOL NUMBER	SELECTED STUDENTS	LEFT SCHOOL	INELIGIBLE	BASE	# COMP	% COMP	# TEMP ABSENT	% T.A.	# REFUSAL	% REFUSAL	# OTHER	% OTHER
STRATUM #1 TOTALS		680	17	3	660	535	81	51	8	4	1	70	10

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STRATUM # 2

SCHOOL NAME	SCHOOL NUMBER	SELECTED STUDENTS	LEFT SCHOOL	INELIGIBLE	BASE	# COMP	% COMP	# TEMP ABSENT	% T.A.	# REFUSAL	% REFUSAL	# OTHER	% OTHER
CONFEDERATION S.S.	1225	12	0	0	12	5	42	1	8	0	0	6	50
MACDONALD CARTIER S.S.	2226	40	3	0	37	34	92	3	8	0	0	0	0
GARSON-FALCONBRIDGE S.S.	2227	26	0	0	26	23	88	3	12	0	0	0	0
LO-ELLEN PARK S.S.	1228	26	0	0	26	24	92	2	8	0	0	0	0
LOCKERBY COMPOSITE SCHOOL	1229	30	0	0	30	29	97	0	0	0	0	1	3
SHERIDAN TECHNICAL SCHOOL	2230	23	0	0	23	15	65	5	22	0	0	3	13
HON. W.C. KENNEDY C.I.	2231	22	0	0	22	22	100	0	0	0	0	0	0
JOHN L. FORSTER C.I.	1232	31	1	0	30	30	100	0	0	0	0	0	0
WINDSOR H.S. OF C.	2233	27	0	0	27	27	100	0	0	0	0	0	0
THE LONDON SOUTH S.S.	1234	15	0	0	13	13	86	1	7	0	0	1	7
SIR WILFRID LAURIER S.S.	1235	27	1	0	26	25	96	1	4	0	0	0	0

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STRATUM 1

SCHOOL NAME	SCHOOL NUMBER	SELECTED STUDENTS	LEFT SCHOOL	INELIGIBLE	BASE	# COMP	% COMP	# TEMP ABSENT	% T.A.	# REFUSAL	% REFUSAL	# OTHER	% OTHER
GRAND RIVER C.I.	2236	30	0	1	29	21	72	5	18	0	0	3	10
SHERWOOD S.S.	2237	22	0	0	22	21	95	1	5	0	0	0	0
WESTMOUNT S.S.	1238	36	0	0	36	33	92	2	5	0	0	1	3
GLOUCESTER H.S.	2239	28	0	0	28	23	82	5	18	0	0	0	0
MERIVALE H.S.	1240	29	0	1	28	21	75	7	25	0	0	0	0
SIR ROB'T BORDEN	1241	31	1	1	29	21	72	8	28	0	0	0	0
SIR ROB'T BORDEN	2241	31	1	1	29	23	79	5	17	0	0	1	4
CANTERBURY H.S.	1242	30	2	0	28	28	100	0	0	0	0	0	0
ECOLE SECONDAIRE DE LASALLE	2243	30	0	0	30	29	97	1	3	0	0	0	0
GLEBE C.I.	2244	36	1	1	34	33	97	1	3	0	0	0	0
SIR WILFRID LAURIER H.S.	2245	26	1	1	24	24	100	0	0	0	0	0	0

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STRATUM # 2

SCHOOL NAME	SCHOOL NUMBER	SELECTED STUDENTS	LEFT SCHOOL	INELIGIBLE	BASE	# COMP	% COMP	# TEMP ABSENT	% T.A.	# REFUSAL	% REFUSAL	# OTHER	% OTHER
WOODROFFE H.S.	1246	31	1	0	30	18	60	11	37	0	0	1	3
HILLCREST H.S.	1247	25	1	0	24	22	92	2	8	0	0	0	0
STRATUM #2 TOTALS		664	13	6	645	564	87	64	10	0	0	17	3

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STRATUM # 3

SCHOOL NAME	SCHOOL NUMBER	SELECTED STUDENTS	LEFT SCHOOL	INELIGIBLE	BASE	# COMP	% COMP	# TEMP ABSENT	% T.A.	# REFUSAL	% REFUSAL	# OTHER	% OTHER
BAWATING C. & V.S.	1348	28	1	0	27	24	89	3	11	0	0	0	0
KORAH C. & V.S.	1349	24	1	0	23	23	100	0	0	0	0	0	0
WIDDIFIELD S.S.	2350	32	2	0	30	29	97	1	3	0	0	0	0
BEAMSVILLE DISTRICT S.S.	2351	30	2	1	27	22	81	4	15	0	0	1	4
GRANTHAM H.S.	1352	23	0	0	23	17	74	6	26	0	0	0	0
GRIMSBY DISTRICT S.S.	2353	29	0	0	29	21	72	7	24	0	0	1	4
LAKEPORT S.S.	1354	22	0	0	22	20	91	2	9	0	0	0	0
NIAGARA DISTRICT S.S.	2355	38	6	0	32	22	69	6	18	0	0	4	13
NIAGARA FALLS C. & V.I.	1356	30	1	1	28	28	100	0	0	0	0	0	0
WELLAND CENTENNIAL S.S.	1357	28	0	0	28	26	94	1	3	0	0	1	3
WELLAND CENTENNIAL S.S.	2357	28	0	0	28	21	75	5	18	0	0	2	7

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STRATUM # 3

SCHOOL NAME	SCHOOL NUMBER	SELECTED STUDENTS	LEFT SCHOOL	INELIGIBLE	BASE	# COMP	% COMP	# TEMP ABSENT	% T.A.	# REFUSAL	% REFUSAL	# OTHER	% OTHER
ALDERSHOT H.S.	2358	34	0	0	34	31	91	3	9	0	0	0	0
GLENFOREST S.S.	1359	44	0	0	44	44	100	0	0	0	0	0	0
LORNE PARK S.S.	1360	31	1	0	30	30	100	0	0	0	0	0	0
STREETSVILLE S.S.	2361	33	1	0	32	31	97	0	0	0	0	1	3
THOMAS L. KENNEDY S.S.	1362	32	0	0	32	29	91	3	9	0	0	0	0
WESTWOOD S.S.	2363	40	1	0	39	34	87	2	5	0	0	3	8
ORILLIA DISTRICT C. & V.I.	2364	27	2	0	25	21	84	0	0	0	0	4	16
DUNBARTON H.S.	2365	28	2	1	25	23	92	2	8	0	0	0	0
PORT PERRY H.S.	2366	25	4	1	20	17	85	0	0	0	0	3	15
BAYVIEW S.S.	1367	34	3	0	31	29	93	2	7	0	0	0	0
SUTTON DISTRICT H.S.	1368	30	0	0	30	29	97	1	3	0	0	0	0

STRATUM # 3

SCHOOL NAME	SCHOOL NUMBER	SELECTED STUDENTS	LEFT SCHOOL	INELIGIBLE	BASE	# COMP	% COMP	# TEMP ABSENT	% T.A.	# REFUSAL	% REFUSAL	# OTHER	% OTHER
NOTRE DAME COLLEGE	2369	37	1	0	36	27	75	9	25	0	0	0	0
PICKERING COLLEGE	1370	22	0	0	22	20	91	2	9	0	0	0	0
STRATUM #3 TOTALS		729	28	4	697	618	88	59	9	0	0	20	3

PROJECT #141 - FINAL REPORT

STRATUM # 4

SCHOOL NAME	SCHOOL NUMBER	SELECTED STUDENTS	LEFT SCHOOL	INELIGIBLE	BASE	# COMP	% COMP	# TEMP ABSENT	% T.A.	# REFUSAL	% REFUSAL	# OTHER	% OTHER
BLIND RIVER DISTRICT H.S.	2471	17	0	0	17	10	59	5	29	0	0	2	12
CHAPLEAU H.S.	1472	21	0	0	21	21	100	0	0	0	0	0	0
IROQUOIS FALLS S.S.	1473	29	1	0	28	28	100	0	0	0	0	0	0
IROQUOIS FALLS S.S.	2473	30	0	0	30	25	83	0	0	0	0	5	17
ROLAND MICHENER S.S.	1474	26	0	0	26	23	88	3	12	0	0	0	0
ALMAGUIN HIGHLANDS S.S.	1475	28	0	0	28	22	79	6	21	0	0	0	0
ALMAGUIN HIGHLANDS S.S.	2475	27	0	0	27	25	93	2	7	0	0	0	0
WEST ELGIN S.S.	2476	32	1	0	31	31	100	0	0	0	0	0	0
THE DISTRICT S.S. (ESSEX COUNTY)	1477	30	3	0	27	27	100	0	0	0	0	0	0
THE DISTRICT S.S. (ESSEX COUNTY)	2477	30	1	0	29	28	97	0	0	1	3	0	0
CENTRAL HURON S.S.	1478	32	1	0	31	26	84	5	16	0	0	0	0

STRATUM # 4

SCHOOL NAME	SCHOOL NUMBER	SELECTED STUDENTS	# LEFT SCHOOL	INELIGIBLE	BASE	# COMP	% COMP	# TEMP ABSENT	% T.A.	# REFUSAL	% REFUSAL	# OTHER	% OTHER
LAMBTON CENTRAL C. & V.I.	2479	33	1	0	32	32	100	0	0	0	0	0	0
JOHN DIEFENBAKER S.S.	1480	23	0	0	23	18	78	5	22	0	0	0	0
WEST HILL S.S.	1481	27	1	0	26	26	100	0	0	0	0	0	0
HURON PARK S.S.	2482	48	0	0	48	48	100	0	0	0	0	0	0
CENTRE WELLINGTON DISTRICT H.S.	1483	21	0	0	21	17	81	4	19	0	0	0	0
JOHN F. ROSS C. & V.I.	1484	31	0	0	31	29	94	2	6	0	0	0	0
NORWELL DISTRICT S.S.	1485	27	1	3	23	18	78	5	22	0	0	0	0
NORWELL DISTRICT S.S.	2485	26	3	1	22	22	100	0	0	0	0	0	0
CAYUGA S.S.	2486	22	0	0	22	16	73	6	27	0	0	0	0
SIMCOE COMPOSITE SCHOOL	2487	31	0	0	31	27	87	4	13	0	0	0	0
ANCASTER H. & V.S.	2488	33	1	0	32	24	75	8	25	0	0	0	0

PROJECT #141 - FINAL REPORT

STRATUM # 4

SCHOOL NAME	SCHOOL NUMBER	SELECTED STUDENTS	LEFT SCHOOL	INELIGIBLE	BASE	# COMP	% COMP	# TEMP ABSENT	% T.A.	# REFUSAL	% REFUSAL	# OTHER	% OTHER
PARKSIDE C.I.	1489	25	1	0	24	20	84	2	8	0	0	2	8
PARKSIDE C.I.	2489	26	1	0	25	20	80	1	4	0	0	4	16
SYDENHAM H.S.	2490	29	9	0	20	19	95	1	5	0	0	0	0
CENTRE HASTINGS S.S.	1491	26	0	1	25	19	76	6	24	0	0	0	0
NORTH HASTINGS S.S.	2492	47	0	0	47	33	70	5	11	0	0	9	19
NORTH GRENVILLE DISTRICT H.S.	1493	32	0	0	32	32	100	0	0	0	0	0	0
COBOURG DISTRICT C.I.	1494	22	0	0	22	19	86	3	14	0	0	0	0
CRESTWOOD S.S.	1495	30	0	0	30	23	77	7	23	0	0	0	0
PRINCE EDWARD C.I.	1496	30	2	0	28	21	75	3	11	3	11	1	3
ECOLE SECONDAIRE DE PLANTAGENET	2497	41	4	0	37	37	100	0	0	0	0	0	0
CORNWELL C.& V.S.	2498	24	0	0	24	24	100	0	0	0	0	0	0

PROJECT #141 - FINAL REPORT

STRATUM # 4

SCHOOL NAME	SCHOOL NUMBER	SELECTED STUDENTS	LEFT SCHOOL	INELIGIBLE	BASE	# COMP	% COMP	# TEMP ABSENT	% T.A.	# REFUSAL	% REFUSAL	# OTHER	% OTHER
NORTH DUNDAS DISTRICT H.S.	1499	30	1	0	29	28	97	0	0	1	3	0	0
STRATUM #4 TOTALS		986	32	5	949	838	88	83	9	5	0.5	23	2.5

PROJECT #141 - FINAL REPORT

STRATUM	# OF SCHOOLS	SELECTED STUDENTS	LEFT SCHOOL	INELIGIBLE	BASE	# COMP.	% COMP	# TEMP ABSENT	% T.A.	# REFUSAL	% REFUSAL	# OTHER	% OTHER
1	22	680	17	3	660	535	81	51	8	4	1	70	10
2	23	664	13	6	645	564	87	64	10	0	0	17	3
3	23	729	28	4	697	618	88	59	9	0	0	20	3
4	29	986	32	5	949	838	88	83	9	5	0.5	23	2.5
TOTALS	97	3059	90	18	2951	2555	87	257	9	9		130	4

SUB - APPENDIX B

Derivation of Correction Factor for Non-Response

The estimated population total was 96,600. The frame weight corrected for sample variability and non-responding schools was

$W'_j = .62 \times R_j \cdot S_j$ where $j = 1,2$ refers to the sample #

The total number of selections in each of samples #1 and #2 denoted by n''_j where $j = 1,2$ and satisfied the relation

$$W'_j \, n''_j = 96{,}600$$

In the i^{th} PSU and the j^{th} sample

let n''_{ij} = # of selections

n'_{ij} = # of selections excluding the ineligibles and drop outs i.e. # of base selections

n_{ij} = # of respondents

Then the total # of students in the population represented by the i^{th} PSU and sample j is given by A_{ij}

where $W'_j \, n'_{ij} = A_{ij}$

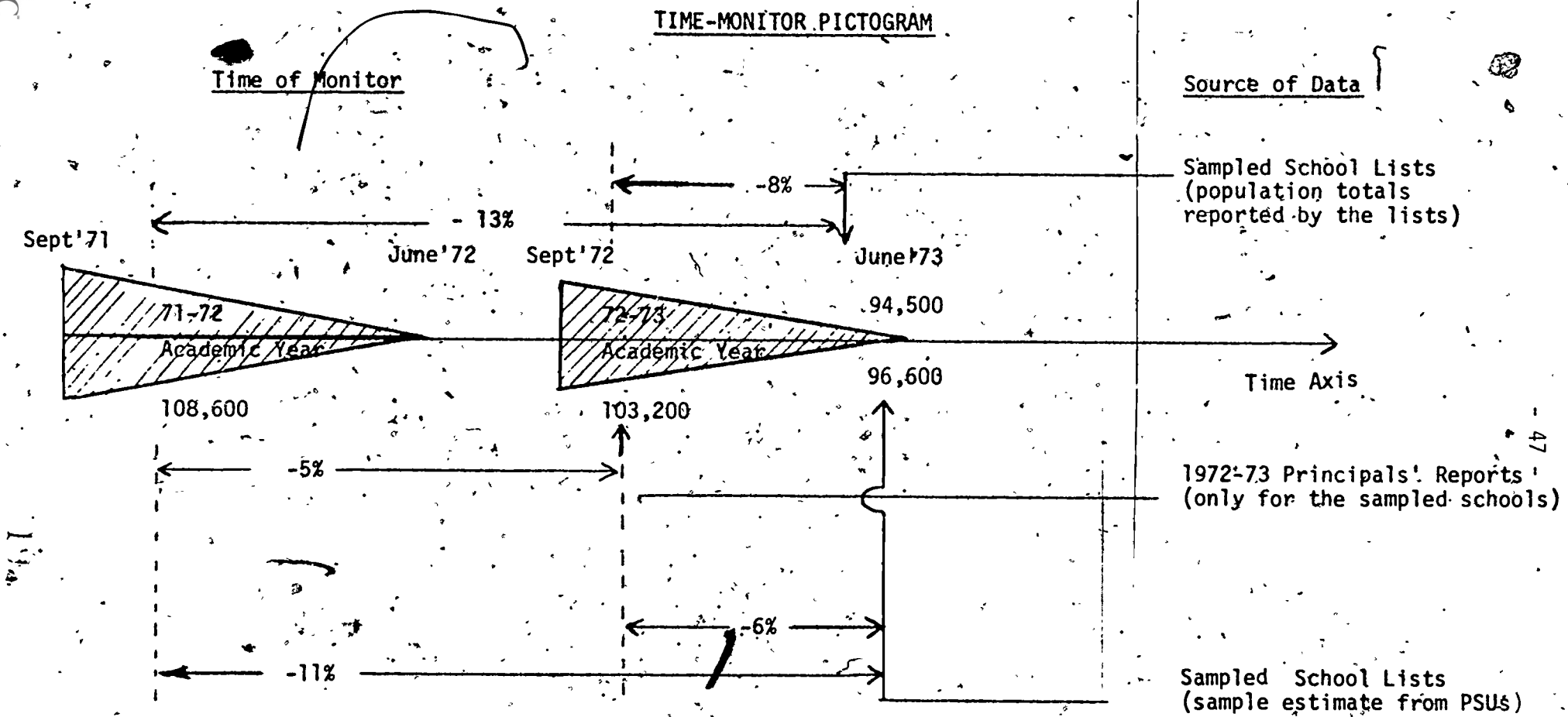
The correction factor for non-response in the i^{th} PSU and sample j is defined by T_{ij} where

$$W'_j T_{ij} n_{ij} = W_{ij} n_{ij} = A_{ij} \qquad \text{where } W_{ij} = 62R_j S_i T_{ij}$$

and therefore

$$T_{ij} = \frac{A_{ij}}{W'_j n_{ij}} \qquad \frac{W'_j n'_{ij}}{W'_j n_{ij}} = \frac{n'_{ij}}{n_{ij}}$$

Note that $\sum_{i=1}^{a_j} A_{ij} = 96{,}600 - W'_j \sum_{i=1}^{a_j} (n''_{ij} - n'_{ij})$



A Comparison of the Estimates of the Grade 12 Population Totals

Figure 1

SUB - APPENDIX C

Project 141 Weights: By Sample - By School

SCHOOL I.D. #	SAMPLE # 1 CORRECTION FACTORS (Phase I)			Wt_{i1} (Phase I)	Wt_{i1} (Phase II)	SAMPLE # 2 CORRECTION FACTORS (Phase I)			Wt_{i2} (Phase I)	Wt_{i2} (Phase II)
	R_1	S_1	T_{i1}			R_2	S_2	T_{i2}		
01	1.03	1.02				.97	1.02	1.19	72.9	90.5
02								1.05	64.3	82.8
03			1.38	90.1	94.7					
04			2.00	130	140.6					
05			1.00	65.2	69.7					
06			1.25	81.5	100.4					
07								1.07	65.7	68.3
08								1.07	65.7	65.7
09								1.05	64.4	87.7
10			1.03	67.5	70.3					
11			1.16	75.6	82.4					
12			1.16	75.4	109.4					
15								1.19	73.0	75.8
16								2.13	131	246.1
17			1.00	65.2	71.1					
18								1.18	72.1	74.9
19			1.15	75.0	75.0					
20								2.94	180.2	191
21								1.13	68.9	71.7
22			1.19	77.8	81.0					
23								1.20	73.4	86.5
24			1.09	71.1	78.2					

Project 141 Weights: By Sample – By School

SCHOOL I.D. #	SAMPLE # 1 CORRECTION FACTORS (Phase I)			Wt_{i1} (Phase I)	Wt_{i1} (Phase II)	SAMPLE # 2 CORRECTION FACTORS (Phase I)			Wt_{i2} (Phase I)	Wt_{i2} (Phase I
	R_1	S_1	T_{i1}			R_2	S_2	T_{i2}		
25	1.03	1.02	2.40	157	196.2	.97	1.02			
26								1.09	66.6	133.3
27								1.13	69.2	83.8
28			1.08	70.6	80.6					
29			1.03	67.5	67.5					
30								1.53	93.8	127.5
31								1.00	61.2	64.2
32			1.00	65.2	74.9					
33								1.00	61.2	66.1
34			1.15	75.2	88.7					
35			1.04	67.8	70.5					
36								1.38	84.5	86.9
37								1.05	64.1	79.4
38			1.09	71.1	71.1					
39								1.21	74.5	114.1
40			1.33	86.9	86.9					
41			1.38	90.1	100.0			1.26	77.3	88.7
42			1.00	65.2	72.9					
43								1.03	63.3	67.7
44								1.03	63.1	77.0
45								1.00	61.2	73.5
46			1.67	109	123.2					
47			1.09	71.1	74.7					

Project 141 Weights: By Sample - By School

SCHOOL I.D. #	SAMPLE # 1 CORRECTION FACTORS (Phase I)			Wt_{i1} (Phase I)	Wt_{i1} (Phase II)	SAMPLE # 2 CORRECTION FACTORS (Phase I)			Wt_{i2} (Phase I)	Wt_{i2} (Phase II)
	R_1	S_1	T_{i1}			R_2	S_2	T_{i2}		
48	1.03	1.02	1.13	73.4	83.8	.97	1.02			
49			1.00	65.2	78.8					
50			-	-	-			1.03	63.3	73.3
51								1.23	75.1	91.7
52			1.35	88.2	93.5					
53								1.38	84.5	88.7
54			1.10	71.7	89.7					
55								1.45	89.0	89.1
56			1.00	65.2	114.1					
57			1.08	70.2	83.0			1.33	81.8	81.8
58								1.10	67.1	74.5
59			1.00	65.2	69.7					
60			1.00	65.2	67.1					
61								1.03	63.2	65.1
62			1.10	72.0	75.0					
63								1.15	70.2	77.2
64								1.19	72.9	90.5
65								1.09	66.5	73.1
66								1.18	72.0	81.2
67			1.07	69.7	114.5					
68			1.03	67.5	85.1					
69								1.33	81.6	183.6
70			1.10	71.7	95.2					

Project 141 Weights: By Sample - By School

SCHOOL I.D. #	SAMPLE # 1 CORRECTION FACTORS (Phase I) R_1	S_1	T_{i1}	Wt_{i1} (Phase I)	Wt_{i1} (Phase II)	SAMPLE # 2 CORRECTION FACTORS (Phase I) R_2	S_2	T_{i2}	Wt_{i2} (Phase I)	Wt_{i2} (Phase II
71	1.03	1.02				.97	1.02	1.70	104	148.7
72			1.00	65.2	97.8					
73			1.00	65.2	79.4			1.20	73.4	96.8
74			1.13	73.3	112.7					
75			1.27	83.0	122.0			1.08	66.1	78.6
76								1.00	61.2	65.5
77			1.00	65.2	76.2			1.04	63.4	68.5
78			1.19	77.8	84.0					
79								1.00	61.2	65.5
80			1.28	83.3	136.6					
81			1.00	65.2	84.8					
82								1.00	61.2	71.7
83			1.23	80.6	125.0					
84			1.07	69.7	80.8					
85			1.28	83.3	115.0			1.00	61.2	70.9
86								1.38	84.2	103.6
87								1.14	70.3	118.8
88								1.33	81.6	93.1
89			1.20	78.3	223.8			1.25	76.5	153.1
90								1.05	64.4	76.8
91			1.32	85.8	108.9					
92								1.42	87.2	151.9
93			1.00	65.2	74.3					

Project 141 Weights: By Sample - By School

SCHOOL I.D. #	SAMPLE #-1 CORRECTION FACTORS (Phase I)			Wt_{i1} (Phase I)	Wt_{i1} (Phase II)	SAMPLE # 2 CORRECTION FACTORS (Phase I)			Wt_{i2} (Phase I)	Wt_{i2} (Phase II
	R_1	S_1	T_{i1}			R_2	S_2	T_{i2}		
94	1.03	1.02	1.16	75.5	80.0	.97	1.02			
95			1.30	85.1	108.9					
96			1.33	86.9	101.8					
97								1.00	61.2	64.8
98								1.00	61.2	66.7
99			1.04	67.5	82.4					

SUM # 1

SCHOOL NAME	SCHOOL NUMBER	SELECTED STUDENTS	# COMP.[1]	% COMP.	# NO PHONE NUMBER	NO PHONE NUMBER	# REFUSAL	# TEMP. ABSENT[2]	# MOVED	# OTHER[3]	% REFUSAL OTHER
Etobicoke C. I.	2101	21	17	81	2	10	0	2	0	0	10
North Albion C. I.	2102	40	31	78	6	15	0	2	1	0	8
Riehview C. I.	1103	21	20	95	0	0	0	1	0	0	5
School of Experimental Education	1104	13	12	92	0	0	0	1	0	0	8
Silverthorn C. I.	1105	31	29	94	1	3	0	0	1	0	3
Thistletown C. I.	1106	16	13	81	2	13	1	0	0	0	6
West Humber C. I.	2107	27	26	96	1	4	0	0	0	0	0
Bloor C. I.	2108	27	27	100	0	0	0	0	0	0	0
Central H. S. of C.	2109	19	14	73	3	16	0	2	0	0	11
Humberside C. I.	1110	28	27	96	1	4	0	0	0	0	0

STRATUM # 1

SCHOOL NAME	SCHOOL NUMBER	SELECTED STUDENTS,	# COMP.₁	% COMP.	# NO PHONE NUMBER	% NO PHONE NUMBER	# REFUSAL	# TEMP. ABSENT₂	# MOVED	# OTHER₃	% REFUSAL OTHER
Malvern C. I.	1111	25	23	92	1	4	0	0	1	0	4
Oakwood C. I.	1112	32	24	75	4	13	0	4	0	0	13
A. Y. Jackson S. S.	2115	26	25	96	1	4	0	0	0	0	0
Bathurst Heights S. S.	2116	15	8	53	7	47	0	0	0	0	0
C. W. JEFFRYS S. S.	1117	36	33	92	3	8	0	0	0	0	0
Emery C. I.	2118	28	27	96	1	4	0	0	0	0	0
Northview Heights S. S.	1119	20	20	100	0	0	0	0	0	0	0
Victoria Park S. S.	2120	18	17	94	1	6	0	0	0	0	0
Cedarbrae C. I.	2121	24	23	96	0	0	0	1	0	0	4
David and Mary Thompson C. I.	1122	26	25	96	1	4	0	0	0	0	0

STRATUM # 1

SCHOOL NAME	SCHOOL NUMBER	SELECTED STUDENTS	# COMP.[1]	% COMP.	# NO PHONE NUMBER	% NO. PHONE NUMBER	# REFUSAL	# TEMP. ABSENT[2]	# MOVED	# OTHER[3]	% REFUSAL OTHER
Winston Churchill C. I.	2123	20	17	85	2	10	0	1	0	0	5
St. George's College	1124	22	20	91	0	0	0	1	1	0	9
STRATUM #1 TOTALS		535	478	89	37	7	1	15	5	0	4

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STRATUM # 2

SCHOOL NAME	SCHOOL NUMBER	SELECTED STUDENTS	# COMP.[1]	% COMP.	# NO PHONE NUMBER	% NO PHONE NUMBER	# REFUSAL	# TEMP. ABSENT[2]	# MOVED	# OTHER[3]	% REFUSAL-OTHER
Confederation S. S.	1225	5	4	80	1	20	0	0	0	0	0
MacDonald-Cartier S. S.	2226	34	17	50	17	50	0	0	0	0	0
Garson-Falconbridge S. S.	2227	23	19	83	3	13	0	1	0	0	4
Lo-Ellen Park S. S.	1228	24	21	88	1	4	0	1	1	0	8
Lockerby Composite School	1229	29	29	100	0	0	0	0	0	0	0
Sheridan Technical School	2230	15	11	74	2	13	1	0	1	0	13
Hon. W. C. Kennedy C. I.	2231	22	21	95	0	0	0	1	0	0	5
John L.Forster C. I.	1232	30	26	87	3	10	0	1	0	0	3
Windsor H. S. of C.	2233	27	25	92	1	4	1	0	0	0	4
The London South S. S.	1234	13	11	85	2	15	0	0	0	0	0

SCHOOL NAME	SCHOOL NUMBER	SELECTED STUDENTS	# COMP.[1]	% COMP.	# NO PHONE NUMBER	% NO PHONE NUMBER	# REFUSAL	# TEMP. ABSENT[2]	# MOVED	# OTHER[3]	% REFUSAL OTHER
Sir Wilfred Laurier S. S.	1235	25	24	96	1	4	0	0	0	0	0
Grand River C. I.	2236	21	20	95	0	0	0	1	0	0	5
Sherwood S. S.	2237	21	17	81	2	10	0	0	2	0	10
Westmount S. S.	1238	33	33	100	0	0	0	0	0	0	0
Gloucester H. S.	2239	23	15	65	8	35	0	0	0	0	0
Merivale H. S.	1240	21	21	100	0	0	0	0	0	0	0
Sir Robert Borden	1241	21	19	90	1	5	0	1	0	0	5
Sir Robert Borden	2241	23	20	88	1	4	0	2	0	0	8
Canterbury H. S.	1242	28	25	89	2	7	0	1	0	0	4
Ecole Secondaire De Lasalle	2243	29	27	93	2	7	0	0	0	0	0

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STRATUM # 2

SCHOOL NAME	SCHOOL NUMBER	SELECTED STUDENTS	# COMP.$_1$	% COMP.	# NO PHONE NUMBER	% NO PHONE NUMBER	# REFUSAL	# TEMP. ABSENT$_2$	# MOVED	# OTHER$_3$	% REFUSAL OTHER
Glebe C. I.	2244	33	27	82	4	12	0	2	0	0	6
Sir Wilfred Laurier H. S.	2245	24	20	83	2	8	0	0	2	0	8
Woodroffe H. S.	1246	18	16	89	1	6	0	0	0	1	6
Hillcrest H. S.	1247	22	21	95	1	5	0	0	0	0	0
STRATUM #2 TOTALS		564	489	88	55	9	2	11	6	1	4

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SCHOOL NAME	SCHOOL NUMBER	SELECTED STUDENTS	# COMP.[1]	% COMP.	# NO PHONE NUMBER	% NO PHONE NUMBER	# REFUSAL	# TEMP. ABSENT[2]	# MOVED	# OTHER[3]	% REFUSAL OTHER
Bawating C. & V. S.	1348	24	21	88	1	4	0	1	1	0	8
Korah C. & V. S.	1349	23	19	83	1	4	0	3	0	0	13
Widdifield S. S.	2350	29	25	86	2	7	0	2	2	2	7
Beamsville District S. S.	2351	22	18	82	3	14	0	1	0	0	5
Grantham H. S.	1352	17	16	94	1	6	0	0	0	0	0
Grimsby District S. S.	2353	21	20	95	0	0	0	1	0	0	5
Lakeport S. S.	1354	20	16	80	1	5	0	2	1	0	15
Niagara District S. S.	2355	22	22	100	0	0	0	0	0	0	0
Niagara Falls C. & V. I.	1356	28	16	57	12	43	0	0	0	0	0
Welland Centennial S. A.	1357	26	22	85	1	4	0	0	3	0	12

STRATUM # 3

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SCHOOL NAME	SCHOOL NUMBER	SELECTED STUDENTS	# COMP.$_1$	% COMP.	# NO PHONE NUMBER	% NO PHONE NUMBER	# REFUSAL	# TEMP. ABSENT$_2$	# MOVED	# OTHER$_3$	% REFUSAL OTHER
Welland Centennial S. S.	2357	21	21	100	0	0	0	0	0	0	0
Aldershot H. S.	2358	31	28	90	2	6	0	1	0	0	3
Glenforest S. S.	1359	44	41	93	3	7	0	0	0	0	0
Lorne Park S. S.	1360	30	29	97	0	0	0	1	0	0	3
Streetsville S. S.	2361	31	30	97	1	3	0	0	0	0	0
Thomas L. Kennedy S. S.	1362	29	28	96	1	4	0	0	0	0	0
West Wood S. S.	2363	34	31	91	1	3	0	0	2	0	6
Orillia District C. & V. I.	2364	21	17	81	1	5	0	2	1	0	14
Dunbarton H. S.	2365	23	21	91	2	9	0	0	0	0	0
Port Perry H. S.	2366	17	15	89	0	0	0	2	0	0	11

STRATUM # 3

SCHOOL NAME	SCHOOL NUMBER	SELECTED STUDENTS	# COMP.$_1$	% COMP.	# NO PHONE NUMBER	% NO PHONE NUMBER	# REFUSAL	# TEMP. ABSENT$_2$	# MOVED	# OTHER$_3$	% REFUSAL OTHER
Bayview S. S.	1367	29	18	62	4	14	0	4	2	1	24
Sutton District H. S.	1368	29	23	79	4	14	0	2	0	0	7
Notre Dame College	2369	27	12	44	15	56	0	0	0	0	0
Pickering College	1370	20	15	75	2	10	1	0	2	0	15
STRATUM #3 TOTALS		618	524	85	58	9	1	22	12	1	6

STRATUM # 4

SCHOOL NAME	SCHOOL NUMBER	SELECTED STUDENTS	# COMP.$_1$	% COMP.	# NO PHONE NUMBER	% NO PHONE NUMBER	# REFUSAL	# TEMP. ABSENT$_2$	# MOVED	# OTHER$_3$	% REFUSAL OTHER
Blind River District H. S.	2471	10	7	70	1	10	0	0	2	0	20
Chapleau H. S.	1472	21	14	66	6	29	0	1	0	0	5
Iroquois Falls S. S.	1473	28	23	82	1	4	0	2	2	0	14
Iroquois Falls S. S.	2473	25	19	76	4	16	0	2	0	0	8
Roland Michener S. S.	1474	23	15	66	4	17	0	2	2	0	17
Almaguin Highland S. S.	1475	22	15	68	3	14	0	4	0	0	18
Almaguin Highland S. S.	2475	25	21	84	2	8	0	1	1	0	8
West Elgin S. S.	2476	31	29	94	2	6	0	0	0	0	0
The District S. S. (Essex County)	1477	27	23	85	1	4	0	2	1	0	11
The District S. S. (Essex County)	2477	28	26	93	0	0	0	1	1	0	7

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SCHOOL NAME	SCHOOL NUMBER	SELECTED STUDENTS	# COMP.$_1$	% COMP.	# NO PHONE NUMBER	% NO PHONE NUMBER	# REFUSAL	# TEMP. ABSENT$_2$	# MOVED	# OTHER$_3$	% REFUSAL OTHER
Central Huron S.S.	1478	26	24	92	2	8	0	0	0	0	0
Lambton Central C. & V. I.	2479	32	30	94	1	3	0	1	0	0	3
John Diefenbaker S. S.	1480	18	11	61	4	22	0	2	0	1	17
West Hill S. S.	1481	26	20	77	1	4	0	3	2	0	19
Huron Park S. S.	2482	48	41	86	2	4	0	5	0	0	10
Centre Wellington District S.S.	1483	17	11	64	2	12	0	3	1	0	24
John F. Ross C. & V. I.	1484	29	25	86	4	14	0	0	0	0	0
Norwell District S. S.	1485	22	19	86	2	9	0	1	0	0	5
Norwell District S. S.	2485	18	13	72	3	17	1	0	1	0	11
Cayuga S. S.	2486	16	13	81	1	6	0	0	2	0	13

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STRATUM # 4

SCHOOL NAME	SCHOOL NUMBER	SELECTED STUDENTS	# COMP.$_1$	% COMP.	# NO PHONE NUMBER	% NO PHONE NUMBER	# REFUSAL	# TEMP. ABSENT$_2$	# MOVED	# OTHER$_3$	% REFUSAL-OTHER
Simcoe Composite School	2487	27	16	53	11	47	0	0	0	0	0
Ancaster H & V. S.	2488	24	21	88	2	8	0	1	0	0	4
Parkside C. I.	1489	20	10	50	10	50	0	0	0	0	0
Parkside C. I.	2489	20	7	35	12	60	0	1	0	0	5
Sydenham H. S.	2490	19	16	84	2	11	0	0	1	0	5
Centre Hastings S. S.	1491	19	15	73	2	11	0	2	0	0	11
North Hastings S. S.	2492	33	19	58	8	24	0	4	2	0	18
North Grenville District C.I.	1494	19	18	95	1	5	0	0	0	0	0
Cobourg District C. I.	1494	19	18	95	1	5	0	0	0	0	0
Crestwood S. S.	1495	23	18	78	3	13	0	2	0	0	9

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SCHOOL NAME	SCHOOL NUMBER	SELECTED STUDENTS	# COMP.$_1$	% COMP.	# NO PHONE NUMBER	% NO PHONE NUMBER	# REFUSAL	# TEMP. ABSENT$_2$	# MOVED	# OTHER$_3$	% REFUSAL OTHER
Prince Edward C. I.	1496	21	18	86	2	10	0	0	1	0	5
Ecole Secondaire de Plantagenet	2497	37	35	94	1	3	0	0	1	0	3
Cornwall C. & V. I.	2498	24	22	92	1	4	0	1	0	0	4
North Dundas District H. S.	1499	28	23	82	0	0	0	3	1	1	18
STRATUM #4 TOTALS		838	665	80	103	12	1	45	22	2	8

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STRATUM	# OF SCHOOLS	SELECTED STUDENTS	# COMP.[1]	% COMP.	# NO PHONE NUMBER	% NO PHONE NUMBER	# REFUSAL	# TEMP. ABSENT[2]	# MOVED	# OTHER[3]	% REFUSAL-OTHER
1	22	535	478	89	37	7	1	15	4	0	4
2	23	564	489	88	55	9	2	11	6	1	4
3	23	619	524	85	58	9	1	22	12	1	6
4	29	838	665	80	103	12	1	45	22	2	8
TOTALS	97	2555	2156	84%	253	10%	5	93	44	4	6%

1. 105 of the total number of completions were by proxy.
2. No contact after four calls.
3. Inelgible, ill, or deceased.

SURVEY RESEARCH CENTRE
YORK UNIVERSITY

APPENDIX II

PROJECT #141-C

STUDY OF EDUCATIONAL PLANS OF ONTARIO HIGH SCHOOL STUDENTS

PHASE 2

RECORD OF CALLS

DATE	TIME	RESULTS

SEX OF RESPONDENT _____

LENGTH OF INTERVIEW _____

SIGNATURE OF INTERVIEWER _____

A [illegible], the Survey Research Centre at York University conducted a survey to study the educational plans of Ontario High School Students. We are now re-interviewing those students to see if they have made changes in their plans. You were one of the students in the sample and we would like to ask you a few questions . . . .

1.a) What are you doing now, that is, are you working, completing Grade 13 or what?

Studying at a College of Applied Arts and Technology	01	→ Ask Q. 1 b. & Q. 2
Studying at Nursing School	02	
Studying part-time at a College of Applied Arts and Technology while working part-time or full-time	03	
Studying at a University	04	
Completing Grade 12	05	→ Ask Q. 1 b. then Go To Q. 3 a.
In Grade 13	06	
In an apprenticeship or at a private commercial, business or trade school	07	
Working at a full-time job	08	
Taking at least one year off to work or travel before beginning full-time study at a post-secondary educational institution	09	
Other (please specify) _____ _____ _____	10	

1.b). Several months ago you told us what you would be doing this fall. If you are doing something different than what you had planned, please explain the reason for a change in plans.

_____

_____

_____

2. From the following list of potential financial sources, please tell us through what source you are financing the total cost (i.e. tuition, living costs and other expenses) of your first year of post-secondary education?

(Probe for next most important source)

	MOST IMPORTANT SOURCE	NEXT MOST IMPORTANT SOURCE
Parents	01	01
Government loans and grants	02	02
Government loans	03	03
Scholarships and/or bursaries	04	04
Savings from summer work	05	05
Earnings from part-time work while staying at university	06	06
Loans from parents, relatives and/or friends	07	07
Personal savings	08	08
Inheritances	09	09
Other	10 _____	10 _____
_____	_____	_____
D.K./Inap	99	99

3 a) What do you plan to do in the fall of 1974?

Continue at post-secondary education	01	
Continue at Nursing School	02	
Study part-time at a University or College of Applied Arts and Technology while holding a full-time job	03	→ *Ask Q. 3 b. & Q. 4. Then Terminate.*
Study part-time and work part-time at a University or College of Applied Arts and Technology	04	
Go directly to University	05	
Go directly to a College of Applied Arts and Technology	06	
Go to Nursing School	07	
Complete Grade 13.	08	
Get a full-time job.	09	
Continue working	10	→ *Ask Q. 3 b. Then Go To Q. 5 a.*
Take at least one year or more off to work or travel before beginning full-time study at a post-secondary educational institution.	11	
Continue apprenticeship.	12	
Other (please specify) _____		
_____		
_____	13	
Don't know	99	

3 b) Several months ago you told us what you were planning on doing in the fall of 1974. If these plans have now changed, please tell us the reason for the change.

_____

_____

_____

4. Through what source will you finance the total cost (i.e. tuition, living costs and other expenses) of your post-secondary education in 1974?

(Probe for next most important source)

	MOST IMPORTANT SOURCE	NEXT MOST IMPORTANT SOURCE
Parents	01	01
Government loans and grants	02	02
Government loans	03	03
Scholarships and/or bursaries	04	04
Savings from summer work	05	05
Earnings from part-time work while staying at University	06	06
Loans from parents, relatives, and/or friends	07	07
Personal savings	08	08
Inheritances	09	09
Other	10 _____	10 _____
	_____	_____
D. K./Inap.	99	99

THANK YOU FOR YOUR CO-OPERATION !

TERMINATE INTERVIEW

5 a) Is there a realistic possibility that you may be considering some form of post-secondary education within the next five years?

(Probe for C. A. A. T., or University)

- Yes: Attend a College of Applied Arts and Technology 1
- Yes: Attend a University 2
- No *(TERMINATE INTERVIEW)* 3
- Inap. 9

5 b) When in the next five years do you think you might enrol for the first time?

- One year from now (1974-75) 1
- Two years from now (1975-76). 2
- Three years from now (1976-77). 3
- Four years from now (1977-78) 4
- Five years from now (1978-79) 5
- D.K./Inap 9

THANK YOU FOR YOUR CO-OPERATION !